SOAP AND CHEMICAL NOVEMBER 1959 SPECIALTIES



Geoffrey H. Wood, head of G. H. Wood & Co., Toronto, was elected president of Canadian Manufacturers of Chemical Specialties Assn. during second annual CMCS meeting in Toronto, November 2-4.

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For removing causticresistant organic finishes —









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Stripping formulations bulletin 3-558

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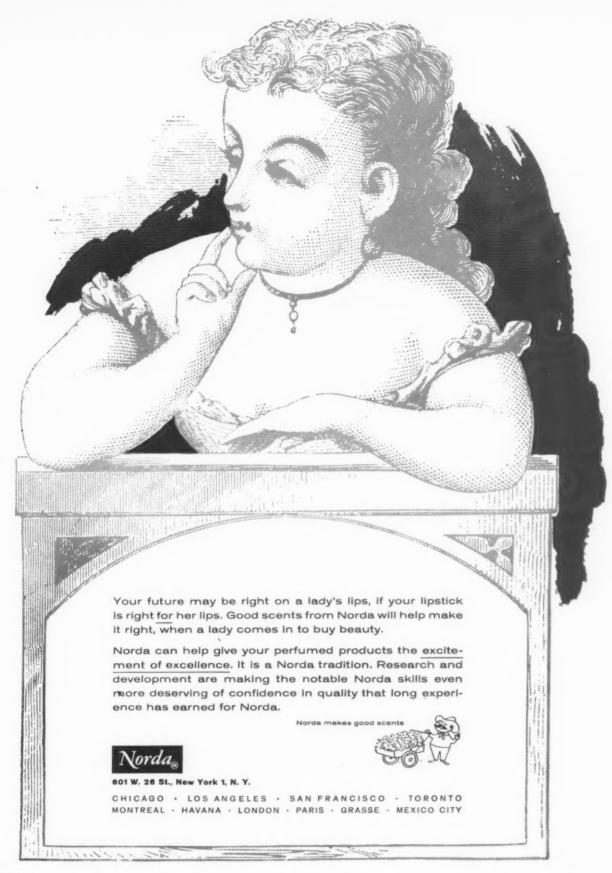
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Onyx Oil & Chemical Company
JERSEY CITY 2, NEW JERSEY
Our 49th Year





Volume XXXV, No. 11 - Nov., 1959

Cover photo: Geoffrey H. Wood, head of G. H. Wood & Co., Toronto chemical specialties firm, was elected second president of the Canadian Manufacturers of Chemical Specialties Assn. at the group's second annual meeting in Toronto Nov. 2-1. Mr. Wood was one of the founders of CMCS and served last year as first vice-president.



MEMBER



SINCE 1934

IN THIS ISSUE

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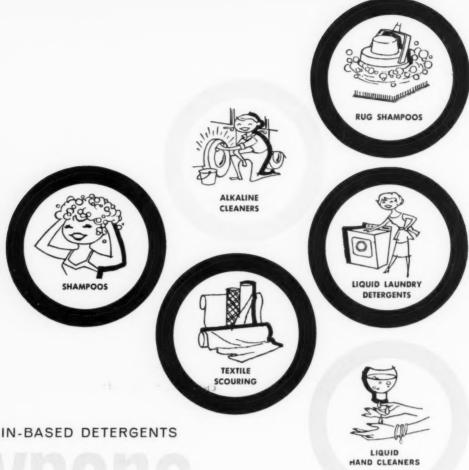
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OFFICIAL PUBLICATION CHEMICAL SPECIALTIES MANUFACTURERS ASSN



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unusual advantages for a variety of products

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Of interest in rug shampoos, they are slow wetters. Learn more about this interesting new class of surfactants.

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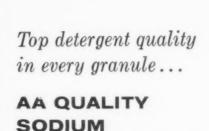
It's a new product! Starting with our own phosphate ores and continuing through processing in completely modern equipment, every step is designed by The American Agricultural Chemical Company to produce the optimum in a free-flowing detergent-grade product.

"AA" QUALITY SODIUM TRIPOLYPHOSPHATE is now available in every standard package and in any commercial quantity. Naturally, we welcome inquiries for full technical information, samples and trial quantities.

Chemical Department

The American Agricultural Chemical Company

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Unusually uniform temperature rise

Your own temperature-rise specification will be met within a very narrow range by AA Quality Sodium Tripolyphosphate. This is because an excellent degree of control over the flow rate-temperature relationship in the calcining process permits a very consistent product within each batch—and from one batch to another.

Free-flowing

Uniform particle size to assure thorough blending and easy pouring was a *particular* requirement of the process design. The results will speak for themselves in your product.

Service..."straight" or mixed

The economy and convenience of mixed phosphate shipments from The American Agricultural Chemical Company provides the most economical way of maintaining supply and inventory of detergent-grade phosphates.

AA QUALITY SODIUM TRIPOLYPHOSPHATE
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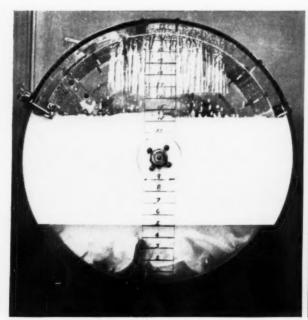




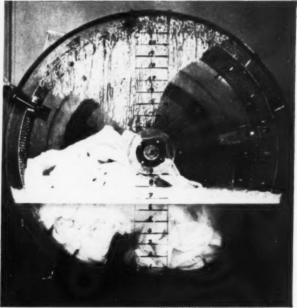
PROBLEM: To develop a rinse aid for mechanical dishwashing that will minimize water spotting and streaking, you need a surfactant with very low foam, good rinsing and wetting action.

SOLUTION: Pluronic polyols excel in all of these characteristics. In addition they have an extremely low order of toxicity. And rinse aids based on a Pluronic are easily formulated.

Can Pluronic polyols



PROBLEM: Formulators of home-laundry detergents must eliminate excessive foaming. But it is often difficult to reduce the foam to the desired level without a loss of detergency.



SOLUTION: Pluronic polyols offer *controlled* foaming, actually increase detergency! Systematic evaluation using the Pluronic Grid will determine the best grade for a specific formula.



PROBLEM: Starch-latex paper coatings require a stabilizer because starch and latex are incompatible. Casein can be used, but it raises the viscosity, must be cooked, can't be stored.

SOLUTION: When Pluronic L62 is used in place of casein, it actually reduces the viscosity of the coating! It requires no preparation, won't deteriorate, and acts as a foam depressant.

make your product better?

THERE'S a good chance they can . . . for very few chemicals offer the versatility of this unique series of patented block-polymers. Consider these facts:

Phironic polyols exhibit a wide variety of surface-active properties. The series ranges in physical form from mobile liquids to pastes and solids sufficiently hard to be flaked . . . all forms are 100% active.

There are grades in the series having molecular weights of 1000 to more than 11,000. They vary from materials that are almost water insoluble to materials that have no cloud point—even at the boiling point of water.

These pictures show three typical uses of the Pluronic polyols. Actually, over 100 successful applications have been found so far, and the end is not in sight!

But the "proof of the pudding" is what the Pluronic polyols can do for you. For samples, technical data, and your copy of the Pluronic Grid, write us today. Wyandotte Chemicals Corporation, Department 781-S. Wyandotte, Michigan. Offices in principal cities.



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PRIVATE BRAND* RESALE BUYERS OF WAXES AND KINDRED PRODUCTS ... Your Quality Guide ...

WATER EMULSION WAXES

Each of Candy's floor waxes are all-around top quality for certain traffic conditions. They impart the finest protection and beauty to floors for which best suited.

CANDY'S SUPREME (standard) BRIGHT BEAUTY® CANDY'S SUPREME Special WR SUPER CAND-DOX® CAND-DOX® # CS CAMIL-WIY #6000

Other CANDY

OUALITY

Beauty and Durability
Initial appearance is important, but for a waxed surface to remain beautiful, it must be durable. Durability depends not only on resistance to abrasion of traffic, but even more so on resistance to discoloring marks. Durability should be measured by how long the waxed surface maintains a nice appearance before complete removal and re-waxing is required.

Anti-Slip
Anti-slip, or reasonable safety underfoot, does not mean that the qualities of deauty and protection need be sacrificed. The proper balance-a wax film which is not excessively slippery, yet which is not tacky and does not collect dirt readily-gives the performance that answers the foremost original reason for use of a floor wax-beauty and protection

Water Resistance

Frequent damp mopping or wet traffic can make water resistance very important. Overdoing this quality when no problem exists out of the ordinary, simply increases the difficulty of complete removal or applying multiple coats. Removability must be considered as important as water-resistance under most normal conditions.

Solid Content

The percentage of solid content is not nearly as important as the **quality** of the solids. Good quality indicates 12% of solids as the answer for most well planned maintenance programs. Two applications of 12% gives better results than one of 18%. "Washed out" floors and other special problems maintain better when more concentrated waxes are used. Overwaxing and resultant greater difficulty in removal for periodic maintenance should be avoided.

Carnauba Wax

The most important features of a good wax all-around quality of performance . . . are built around Carnauba Wax. When refined and compounded with other additives and scientifically controlled in manufacture, Carnauba imparts the beauty and protection that makes the use of floor waxes both profitable and possible. Make-shift manufacture or over-emphasis on any one given wax feature should be avoided and proper care taken to provide for most satisfactory performance.

CANDI-COAT 1000. WATER RESIN EMULSION—As a floor coating for use under specific conditions of continued maintenance on certain types of floors this water resin emulsion has none of the faults associated with coatings of this type. It is the finest product in its class produced up to this time.

Bright Beauty WAX REMOVER & all-purpose SURFACE CLEANER— For removal of water-emulsion waxes from any floor without harmful effects. It is the perfect maintenance program wax remover and all-purpose surface cleaner. Pleasant odor, crystal clear color and thorough cleaning action with all types of equipment. Unaffected by hard freezing. Furnished ready for resale or in concentrated form for local packaging ... nothing but water to buy or mix in.

CANDI-CLEAN all surface—all synthetic CLEANER—This is an all synthetic and all purpose surface cleaner with free rinse and free wipe off qualities. Furnished in several colors and odors, and properly priced. Available in two concentrations for resale and in concentrated form for dilution with water for

Bright Beauty CREAM FURNITURE POLISH—A cream furniture polish that spreads easily, polishes without excessive effort to a deep impressive lustre. Permits repeated repolishing with a dry cloth, thus saving many reapplications. A very economical polish of the very highest quality.

Bright Beauty PASTE WAX Properly blended and refined from excellent quality solids and solvents that produce the best drying time and evaporation. Easy to handle, having "creamy" consistency and stability that lasts throughout storage and usage life.

Bright Beauty LIQUID (spirit) PREPARED WAXES A complete line of spirit dissolved waxes that meet a wide variety of demands for durability, color and types of usages. Each acts as a "dry cleaner" to keep surfaces wax protected with a superb coating necessary for many applications such as wood and certain other types of floors; for bars, wallpaper, etc.

As a glass cleaner (pink color) it applies evenly with little effort, wipes of easily with hegligible "powdering" and produces an undeniable "feel" of cleaniness to glass. As a cleaner of silver, it polishes to a high lustre without abids and can even correct the abuses of scratchy "quick-polish" inferior

Bright Beauty DANCE FLOOR WAX Does not "ball-up" and gather dirt that Impregnates floors with hard spots difficult to remove... free from dusty effects. Its protective quality adds more "floor-years" to expensive ballroom

effectively and quicker than most scouring powders. Depending on application, a can clean to perfection even painted walls to provide a suitable repainting surface. 100% active, free from excessive abrasive qualities, it frees almost every surface from all foreign matter.

containing SILK SCREEN LABELING Now you can have dramatic, colorul labeling of your private brand name on all 55, 35, 30, 20 & 15 gal. drums and 5 gal. palls. This added service is accomplished right in our start your inspection invited . . \ or write for details.

> * All Candy's products are available for private brand resale and are sold only through distributors except for experimental accounts in Chicago essential to

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liquid detergents based on Nacconol[®] are as good as they look!

And they look mighty good . . . whether you use NACCONOL 60S with its higher viscosity or NACCONOL SL with the flowability of water.

Both are homogeneous liquids with a pale-yellow color and a clean, fresh smell. They are clear and pourable even below 32°F.

Liquid NACCONOLS have excellent foaming, wetting and detergent action and are recommended for a wide variety of household and industrial cleaners. They're neutral, stable to strongly acid or alkaline aqueous solutions and are compatible with anionic and non-ionic materials.

Samples and data available

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Nacconol SW

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If you have a backlog of "promising" liquid detergent formulas that won't go into clear solution, or that cloud up under temperature changes, Ultra's hydrotropes may be the answer to your problem.

For example, in heavy-duty liquid detergents, where large amounts of phosphates tend to force the active organic ingredient out of solution, Ultra's hydrotropes act as solubilizers or

coupling agents, permitting the formulation of clear, stable solutions.

In light-duty liquid detergents, these hydrotropes often are effective cloud-point depressors. In some cases, cloud points can be depressed as much as $15\,^{\circ}\mathrm{F}$.

In spray-dried soaps or detergents, Ultra hydrotropes provide anti-blocking properties that help to assure free-flowing beads.

Write for our bulletin on the properties and applications of ULTRA Hydrotropes SXS and STS. Or, call Ultra's Director of Technical Service for help on your formulation problems.

Ultra Chemical Works

Division of Witco Chemical Company, Inc 2 Wood Street, Paterson, N.J.



Bouquet Contessa...



Penick's newest floral fragrance!

DENICK

One of the most elegant and delightful mixed florals we've ever offered!

We're pleased to recommend it for a wide variety of toiletries, cosmetics and household preparations. Low concentrations impart a blend of dew-fresh fragrances in pleasingly subtle accents.

BOUQUET CONTESSA is compatible with most formulations and stable in aerosols.

Be sure to write for a generous sample today!

Perfumes, Flavors and Aromatics Department

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There are no finer... Shulton nitro musks are rigidly controlled throughout manufacture to assure absolutely constant odor quality. Whether your application is for ambrette, ketone, or xylol, Shulton's years of experience in nitro musk manufacture can provide you with the very finest grade, for exacting perfumery requirements, or with technical grade, wherever this economy is feasible. And, remember, you can rely on their availability, for Shulton nitro musks are domestically made.

Technical data, samples, and additional information, on request.

SHULTON FINE CHEMICALS

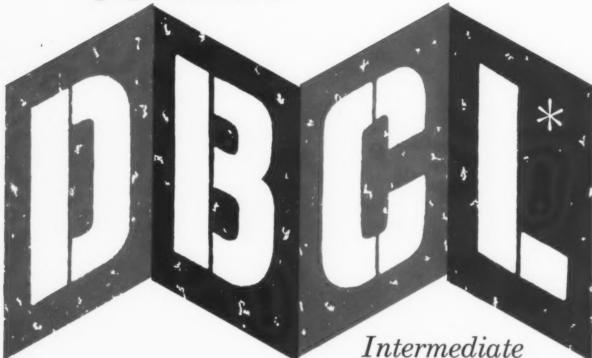


FINE CHEMICALS DIVISION SHULTON, INC. AS ROCKSFELLER PLAZA MEM YORK





NEW! CONOCO



for cationic detergents now available in <u>commercial quantities</u> from

CONTINENTAL OIL COMPANY

*TYPICAL PHYSICAL PROPERTIES

Specific Gravity at 60°F	0.965
Apparent Molecular Weight	
Activity	Approx. 95%
Minimum Activity	90%
Flash Point (C.O.C.)	.355°F.
Viscosity S.U.S. at 100°F	105
Pour Point	Less than -5°C.

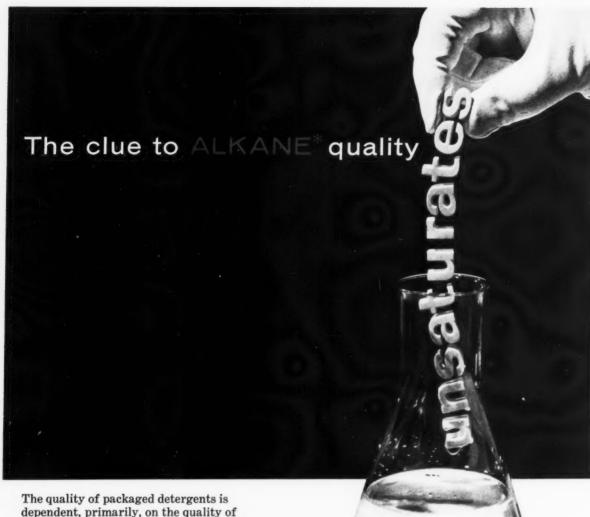


For chemicals with a head start on the future...count on CONOCO*!

CONOCO DBCL (dodecylbenzyl chloride, technical grade) reacts with tertiary amines to form cationic surface-active agents—known chemically as "quaternary ammonium salts." Quaternaries are used as the active ingredients in sanitizer preparations, as textile softeners, and as antistatic agents for fibers, plastics, and paper. Nonionic surface-active agents may also be made by reacting CONOCO DBCL with the appropriate polyglycol.

For samples and further information, just send a request on your letterhead.

CONTINENTAL OIL COMPANY, PETROCHEMICAL DEPARTMENT 1270 AVENUE OF THE AMERICAS, NEW YORK 20, NEW YORK



dependent, primarily, on the quality of their alkylate raw material. And there is good reason why the best-quality sulfonates are made from Oronite's detergent alkylate ALKANE.

The clue to ALKANE quality is in its low bromine number. Highly pure ALKANE, with its low bromine number, contains an infinitesimal quantity of unsaturated impurities. This means high conversions, good sulfonate color and low unsulfonated oil.

Actually ALKANE has the lowest bromine number of all commercial dodecylbenzenes. It's your further assurance that if you use ALKANE you are using the finest detergent alkylate available.

*TM Detergent Intermediate



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After Closing

NPCA Meets in Biloxi

Harold Schnorrenberg of Dead Shot Chemical Co., Oklahoma City, Okla., was elected president of the National Pest Control Association late last month at the organization's 26th annual convention in Biloxi, Miss. More than 600 pest control operators attended the event at which there were about 45 exhibitors.

Maurice Oser of Oser Exterminating Co., Denver, Colo., is the new executive vice-president. and Charles Houghton of Safety Fumigant Co., Boston, was reelected secretary-treasurer. New members of the executive board are: R. R. Schendel, Schendel Pest Control, Inc., Topeka, Kans.: Robert C. Yeager, Rose Exterminator Co., Cincinnati; and Myron W. Smith, Hill-Smith Systems, Memphis, Tenn. Ex-officio members of the board are Mr. Schnorrenberg and Wayne K. Davis of Ailing House Termite Control Bureau.

Oakland, Calif., immediate past president of NPCA.

E. G. Hibarger Dies

Edwin G. Hibarger, for 10 years sales manager of the distilled acid division of Capital Cty Products Co., Columbus, O., refiners and manufacturers of edible oil products, died Nov. 3. He is survived by his widow, a son and daughter, three sisters and a brother.

Brenn Heads Clergy Unit

J. L. Brenn, president of the Huntington Laboratories, Inc., Huntington, Ind., and a former president of the Chemical Specialties Manufacturers Association, has been elected president of the newly incorporated Clergy Economic Education Foundation. With headquarters at Purdue University, Lafayette, Ind., the new foundation has a program to establish "economic workshops" for clergy in

Jack V. Vernon, vice-president of Food Machinery and Chemical Corp., New York City, who was reelected president of the National Agricultural Chemicals Assn., last month, declared that pesticides sales this year have been "good." He indicated that 1959 dollar volume will be greater than the \$265 million sales figure of '58. Dr. George R. Furgeson, president of Geigy Agricultural Chemicals Division, Geigy Chemical Corp., Ardsley, N. Y., was elected vice-president of NACA. New directors include: Paul Mayfield, Hercules Powder Co., Wilmington, Del.; and John A. Field, Union Carbide Chemicals Co., New York.

various other states under the sponsorship of their respective state universities. These "workshops" for clergy are to be established by the foundation and after the first year, maintenance is taken over by a combination of local state labor, farm and business organizations.

The Economic Workshop for Clergy has been operated for the past three years at Purdue University for some 60 clergymen, Protestant, Roman Catholic and Jewish giving them courses in economics, banking, industrial relations and other business subjects. The workshops are underwritten by Purdue University's Advisory Council. Two new units have recently been established, one at the University of Kentucky and the other at Boston University.

Machinery Firm Moves

Machinery & Equipment Co. is now relocated at 91 New Jersey Railroad Ave., Newark 5, N. J. The firm, which deals in new and rebuilt equipment, is a division of Haring Equipment Co.

Shoppers watching demonstration of aerosol products during four-day promotion, Oct. 22-25. at Rickel Brothers hardware-housewares supermarket in Succassunna. N. I. Twenty-one complete demonstration routines were put on during four-day Aerosol Fair. Hanging in front of and over 12×12 foot demonstration booth is net filled with aerosol cans. Prize was awarded to customer guessing number closest to number of cans in net, Rainy, foggy weather during first three days of promotion and effects of steel strike cut down on number of customers at promotion, which sold 468 aerosol units worth \$424.09. Rickel stores in Union and Paramus, N. J., tied in with promotion with special displays of aerosols but did not stage product demonstrations.



CMCS Elects Wood

Canadian Mfrs. of Chemical Specialties Assn. chooses G. H. Wood as president at second annual meeting in Toronto, Nov. 2-4

ARKETING, management and technical aspects of a wide range of chemical specialties were discussed during the second annual meeting of the Canadian Manufacturers of Chemical Specialties Assn., held Nov. 2-4, at the Royal York Hotel, Toronto. Unofficial registration figures indicated a total attendance of 170, which represented a gain over last year's meeting.

Geoffrey H. Wood, head of G. H. Wood Co., Toronto, a founder and vice-president of CMCS since its organization in 1958, was elected president. He succeeds George H. Flemming of Guardian Chemical & Equipment Co., Montreal, another founder, who becomes a director.

Other officers elected for the next year are: vice-presidents, R. L. Jones, Colgate-Palmolive, Ltd., Toronto, and A. H. Carter of John Struthers & Co., Montreal; secretary, A. Robins, Cartier Chemical Co., Lachine, and treasurer, Gordon S. Lang, Connecticut Chemicals (Canada), Toronto.

New directors are: R. T. Howard, A. H. Howard Chemical Co., Orangeville; G. V. Jansen, S. C. Johnson & Son, Brantford; H. G. Lederer, R. M. Hollingshead Corp., Ltd., Brownsville; R. S. Sweet, Success Wax, Ltd., Quebec; Carl Durant, Aerocide Dispensers, Ltd., Scarborough, and Don Lee, DuPont of Canada, Ltd., Montreal.

The problem of tariffs in Canada, uppermost in the minds of most chemical specialties manufacturers there, was the topic of discussion at the first session of the meeting, the morning of Nov. 3. A. Robins, a director of the association last year and chairman of the CMCS committee on tariffs, served as moderator. The two

panelists, whose discussions were followed by questions, were G. H. Glass, vice - chairman, Canadian Tariff Board, Ottawa, and J. A. Davis of DuPont of Canada, Ltd.. Montreal. Mr. Davis is chairman of the Chemical Industry Tariff Committee

Mr. Glass reviewed the legislative procedure under which tariffs are established, outlined the responsibilities of the Tariff Board and the coverage of Reference 120. Hearings on the establishment of new chemical classifications are scheduled to be held next spring. Mr. Glass stated. By early summer the announcement will be made of those groups of chemical items on which there will be hearings in the fall of 1960.

Five years ago Canadian chemical companies began a study of tariffs on their products, Mr. Davis recalled. He said that later the Ministry of Finance requested a study of tariffs. The present classification of chemicals, according to Mr. Davis, has resulted from expedient action, largely by the chemical industry itself. A new study, which covers 14,000 products by common names or standard

R. L. Jones Secretary



chemical names, largely follows the British system of classification. Information for the index was supplied by most of the 550 firms manufacturing chemicals and allied products in Canada.

The duty rates are the most controversial sections of the work carried on by his group, Mr. Davis explained. Information on duty rates has been submitted by most manufacturers, he said. However, he added, it "behooves us to complete the required information with dispatch." Tariffs on finished products are "essential to give us a fair shot at the Canadian market." he declared.

In general the Canadian Chemical Specialties industry would like to see low, or as in the case of pesticides, no duty on raw material imports on which Canada is not basic. On finished products the specialties industry wants tariff protection.

"If we devote our time to disparaging the products of our business rivals, we hurt business generally, reduce confidence (of consumers in our products), and increase (customer) discontent," J. L. Brenn, president of Huntington Laboratories, Inc., Huntington, Ind. told the luncheon meeting, Nov. 3. Instead of "conversion selling," which he described as "switching customers from competitor's to your products," he called for creative selling, or the broadening of one's sales efforts to new fields.

Mr. Brenn pointed out that "the geographic frontiers of Canada and the U. S. are almost gone. No longer can a young man 'go west' and stake out his claim. But the scientific frontier is barely scratched. And the scientific frontier has no limit. It is limited only by the mind and the imagination of man. Its horizons are vertical, not horizontal," Mr. Brenn concluded.

"Insect resistance now has us on the run," A. W. A. Brown, head of the department of zoology of the University of Western Ontario, declared during a meeting

of the Insecticide Division, Nov. 2. Dr. Brown, a world authority on insect resistance, pointed out that the main hope of overcoming the effects of resistance is the development of new types of insecticides that are much more toxic than present ones. The use of such insecticides on resistant insects tends to reverse the mechanism of resistance and bring about in the insect a greater susceptibility to the less toxic type of insecticide. The seat of resistance in the insect. he said, is a single gene which through strains of hardier insects has been able to detoxify certain insecticides.

Dr. Brown stressed the importance of obtaining specimens of resistant insects early in their development and to test them thoroughly.

The main difficulty in the development of new insecticides is the large investment required, and the lack of assurance of a continued return on it, he said.

According to Dr. Brown, it costs \$1.7 million to bring out a new pesticide. If the life of the product is short, no commercial firm would be willing to go ahead with it.

Other speakers on the pesticide panel included Lloyd Roadhouse of the Scientific Information Section, Research Branch, Canadian Department of Agriculture: Dr. E. Mastromatteo, Division of Hygiene, Ontario Department of

A. H. Carter



Health; and Dr. H. Gray, Board of Grain Commissioners, Ottawa.

Mr. Roadhouse discussed certain principles that apply to the manufacture and sales of household insecticides. He called on insecticide formulators and marketers to use "more discretion" in their choice of retail outlets to provide all necessary information to dealers able to answer intelligently the many questions asked.

Mr. Roadhouse also called on pesticide manufacturers and/or marketers to institute an educational program to "ensure that the customer may use the pesticides available to the best advantage in the insect battle. "With such a large array of chemicals and products for such a diversified number of uses, the customer is often confused. He finds great difficulty in knowing what, when, where and how to use them."

According to Mr. Roadhouse "chemicals are often misused because the many recommendations for application are confusing to the user."

In discussing industrial insecticides Mr. Gray pointed out that it is not necessarily true that in plants maintaining a high degree of sanitation the use of pesticides will be limited.

"The operator who maintains his plant in a clean condition is usually much more insect-conscious and is prepared to spend money to keep it free from pests."

Admitting their usefulness in safeguarding health and for their help in protecting food crops. livestock, non-food crops, etc., Dr. Mastromatteo pointed out that questions have been raised as to the effect of pesticides on human beings. He pointed out that it is important to know of any health hazards arising from the use of pesticides. In cases of alleged food poisoning he advocated early diagnosis and treatment in order to save lives and also to rule out disease symptons not caused by insecticides. Hazards to people engaged in the manufacture and application of insecticides were evaluated by Dr. Mastromatteo.

An evaluation of the performance characteristics of paste floor wax components, first as individual waxes, secondly as combinations of two types of waxes, and finally combinations of three waxes, was presented in a paper by A. R. Schuster and T. V. O'Connor of Shanco Plastics and Resins Corp., Tonawanda, N. Y. The study, which covered some 300 pastes, involved a minimum of three penetration tests perpaste, and gloss and buffability results of each paste.

Two new silicone based formulations for use as a furniture polish and a general purpose househould cleaner-polish, both to be dispensed from a pressure package, were contained in a paper by John Stapp of Linde Air Products. Mr. Stapp spoke on "New Silicone Furniture Polishes."

Data on the consumer market for three brands of automotive waxes and polishes packaged as aerosols were included in a paper by G. L. Piper of the Freon Products Division of E. I. du Pont de Nemours & Co., Wilmington, Del., at the first session of the aerosol division, Nov. 3. Mr. Piper also listed 35 types of automotive aerosols now available. He said that although the automotive field for aerosols has never been studied, his firm hopes in the future to "provide the automotive market

A. Robins



with authoritative market information to assist this segment of the aerosol industry to grow and prosper." From statistical information available on the aerosol car wax market it appears that one million households bought at least one aerosol wax in the six month period studied in 1958. It was also determined that 77 per cent of the automobile owners polish their cars or have them polished twice a year or more. According to Mr. Piper, 16 per cent of the car owners have their cars waxed once a year, while seven per cent have it done less that once a year. He also pointed out that dollar sales of aerosol car waxes in the first six months of 1959 were about double the sales of these products in 1958, and that aerosol car waxes now enjoy approximately six to 10 per cent of the total auto wax market.

"Mixing toxicants of different compounds is helping to overcome insect resistance to certain pesticides, but the ultimate solution is the development of new toxicants, a process that takes three to five years, John Odeneal of Fairfield Chemicals, Food Machinery and Chemicals Corp., New York, stated. He was speaking at the joint session of the Aerosols and Automotives divisions, Nov. 2. Mr. Odeneal pointed out also that today insecticides for household use must be developed first for use in agriculture, because of the economics of the situation.

Modification of conventional nonionic surfactants, which foam excessively in some mechanical operations involving high agitation, by the incorporation of a second hydrophobic group into the molecule can markedly lower foam while still maintaining useful surface activity. J. Dupre of Rohm & Haas Co., Philadelphia pointed out. He presented a paper before a joint meeting of the Soap & Detergents and the Disinfectants and Sanitizers Divisions, Nov. 3. Four modified nonioncs were described in the paper, "Properties of Low

Foam Nonionic Surfactants," coauthored by Mr. Dupre, R. E. Wolfrom and D. B. Fordyce.

The second paper at the joint meeting of Soaps & Detergents and Disinfectants & Sanitizers Divisions dealt with "Recent Developments of Iodine in Disinfection and Sanitization." The paper was written and presented by Dr. T. F. Wetzler of Chilean Iodine Educational Bureau, Inc., New York. Dr. Wetzler declared that "modern technology has eliminated or reduced to minimal points some of the undesirable characteristics which formerly limited the use of iodine-iodide solutions as environmental disinfectants." This led to the application of newer compounds based on iodine as active contact germicides. "Exhaustive data which show the bactericidal efficiency of iodine and the lack of irritation, toxicity. or other undesirable side effects" has brought about the growing importance of these products for water disinfection, according to Dr. Wetzler.

Although his company had great success in the sale of its product "Gold Seal Glass Wax," he failed in Canada, Harold Schafer, president of Gold Seal Co., Bismarck, N. D., and head of Harold Schafer Co. of Canada, told the morning meeting, Nov. 4. The reason for his failure in succeeding in Canada was two-fold, Mr. Shafer said. First, because of the similarity of the American and Canadian people and their countries he did not take into account the differences between the two countries. Secondly, Mr. Schafer said, he thought he could "buy success," using the same sales and merchandising tools and techniques that had worked so well in the United States. His company now "operates in Canada on a very small scale with very little expense to make it stand on its own feet." Mr. Schafer said.

Among the points Mr. Schafer cited as necessary for the success of any business are to "cut out products that are not profitable and to drop employees that are not productive."

The luncheon speaker, Nov. 4 was the Russian Ambassador to Canada, Amasast A. Aroutuniam. Mr. Aroutuniam cited the growth of industrial development in the U.S.S.R. in the past several years. He pointed out that under the present seven year plan, scheduled to be completed in 1965, the chemical industry will show large growth.

Problems of developing perfumes for aerosol products were discussed during the second session of the Aerosol Division, the afternoon of Nov. 4. Victor Di-Giacomo, administrator of perfume laboratories of Givaudan-Delawanna, Inc., New York, pointed out that there was no problem in developing a perfume blend, but that the effect of the propellant on the compound, and the effect of the compound on the container, coating and valve did present problems.

Major points to be considered in the marketing of an aerosol product were cited and discussed by the second speaker of the session, Dr. Winston G. Reed, head of Reed Research Corp., Shelton, Conn. The 10 points to be considered include: 1. Is the product worthwhile?; 2. Frequency of use; 3. Potential market volume; 4. Competitive situation; 5. Duration of sales season; 6. State of product development; 7. Patentability; 8. Ease of production; 9. Consumer education required; 10. Profit margin.

"Today materials which will act as curing agents, hardeners, and sealers have been developed and these can be applied to freshly trowelled cement floor surfaces," Harold Schmidt of Federal Varnish Division, told the session of the Waxes & Floor Finishes Division, Nov. 4.

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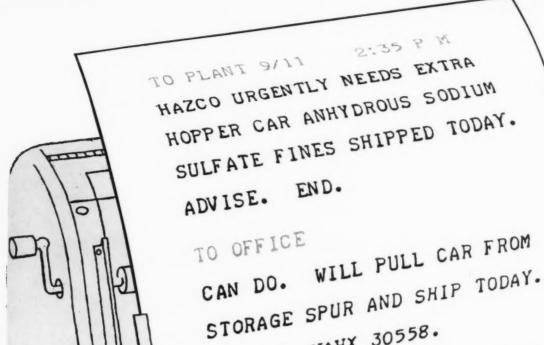
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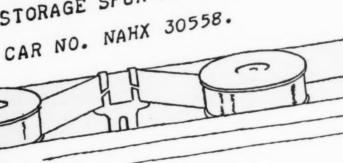
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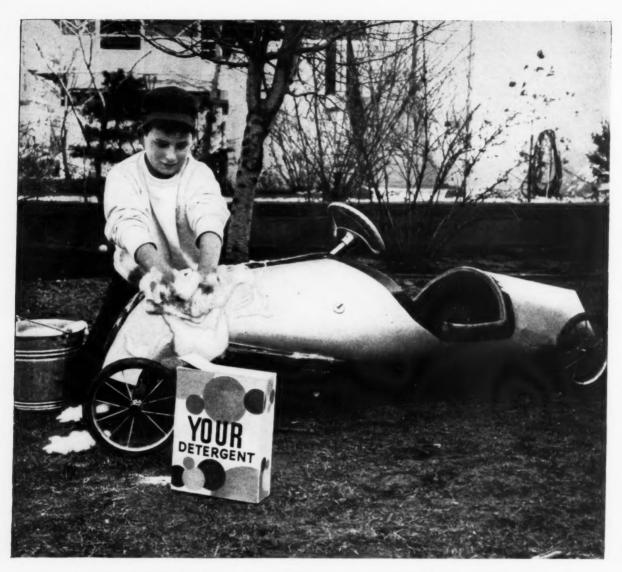
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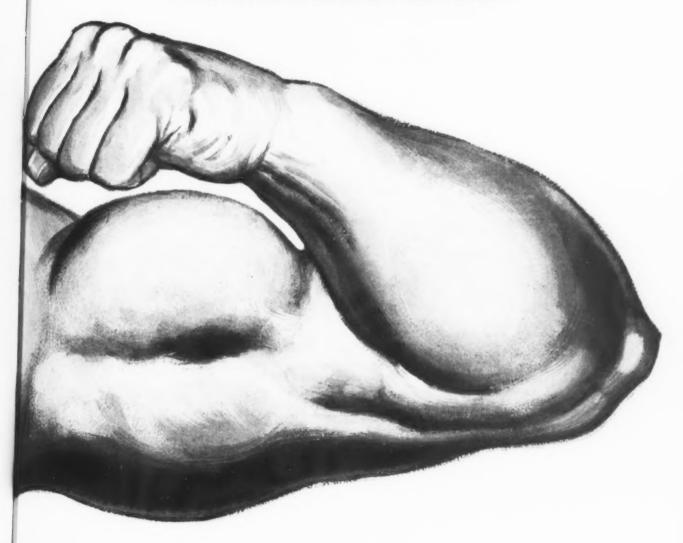
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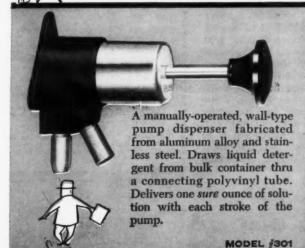
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OFFERS THE SPECIALTIES MARKETS FAST SERVICE ON UNIFORM-QUALITY

Sulfonates

If you formulate rust and corrosion inhibitors, agricultural sprays, emulsifying oils, dry-cleaning compounds, textile-process chemicals, or any other compounds requiring an anionic surface-active agent, you'll be interested in Sun as a fast, reliable source for oil-soluble sodium sulfonates. Sun's new lighter-colored (LC) grade has a maximum dilute color specification of 3.5 (ASTM D-155). It is consistently uniform in quality. And all Sunoco sulfonates are mainstream products, not merely by-products of white-oil refining.

Available in tank-car, tank-truck (min. 1000 gal.), and drum quantities. Heated tank-truck shipments are delivered ready for pumping to storage tanks or drums.

FOR DETAILED information, call your nearest Sun representative, or write for free technical bulletin.

TYPICAL PROPERTIES

Sulfonate LC	Sulfonate OS
62.5	60
445	445
3.5	3.5
0.51	0.7
34.4	34.4
31/2	5+
1200 approx	1200 approx
Neutral	Neutral
1.03	1.02
8.6	8.5
	62.5 445 3.5 0.51 34.4 3½ 1200 approx Neutral 1.03

Other Sun petrochemicals: Anhydrous ammonia, benzene, toluene, xylene, Sunaptic® (naphthenic) acids, propylene trimer, propylene tetramer, PDO-40 (petroleum drying oil), sulfur.

Refer to Chemical Materials Catalog for further data on Sunoco petrochemicals and a list of local office phone numbers.

INDUSTRIAL PRODUCTS DEPARTMENT SC-11
SUN OIL COMPANY

Philadelphia 3, Pa.

In Canada: Sun Oil Company Limited, Toronto and Montreal





MAKERS OF FAMOUS CUSTOM-BLENDED BLUE SUNOCO GASOLINES



SECOND PRIZE:

Zenith Stereo Hi-Fi Console.
This exquisite mahogany model will bring the finest recorded music to life.
A breathtakingly beautiful addition

THIRD PRIZE

10 FOURTH PRIZES:

Zenith Portable

15 FIFTH PRIZES:

Zenith AM-FM table radios



22 SIXTH PRIZES:

Zenith



"IT PAYS TO CONTEST

it's	Easy
it's	Fun!

D		2		3	4	5		6	7 E	Т	Т	E	R	
		8	9				10		L			L		
N		11				12			13 S	14	1	L		15 S
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OFFICIAL ENTRY BLANK

"IT PAYS TO SEE VICTOR" CONTEST, Box 5907, Chicago 77.

Name

Company

Address

City Zone State

HERE'S ALL YOU DO ...

Study the clues carefully, then fill in the missing letters in the puzzle. Clues to some of the names or abbreviations of Victor chemicals in the puzzle are given in the story on the back page. Extra clues will be available in Victor's Booth at the New York Chemical Exposition at the coliseum. One word of caution: a few of the regular word choices are tricky. So, be careful. Winning entries will be selected on the basis of the rules given on the opposite page. The correct solution to the puzzle is locked in the vaults of The First National Bank, Lake Forest, Illinois.

IT'S A JET CLIPPER TOUR FOR

TO

AND THE 1960 OLYMPIC GAMES

MORE WONDERFUL PRIZES!

CLUES ACROSS

- 3. Product of combustion.6. Hospital patient should be
- glad to get this.

 8. First two words of a truism
- known to buyers of chemicals (See 9 Down).
- Very small round mark 12. Greek letter associated with 3.14159.
- 13. One is enabled to get up and down with the help of the steps on the
- steps on these. You play billiards with them. Acid used in leather tanning
- and in dyeing textiles. Percolates.
- 20. Is that ? 21. One kind of thoroughfare
- (abbr.) Abbreviation of a chelating agent used to control metallic
- ions in water. Rocky pinnacle or peak Meat of calves.
- There are certain conditions in which a hard blow may cause one to be broken off. Not every ERIAL is suit-
- 29. Not every ERIAL is suitable for TV.
 30. Bloody this may well be helpful in solving zoo keeper's mysterious death.
 31. Letters of the chemical symbol of chemical symbol.
- bol of element combined in a sodium phosphate used in household cleansers. Abbreviation of chemical in-
- termediate used in organic vnthesis
- Encouragement should be freely given to person who may I CH to reach a worthy goal.
- Victor has a of satisfied customers
- Tree of the genus Ulmus.
- You'd expect to see one on

- 39. Prefix of phosphate used in liquid detergents.40. Seeing these ahead, steersman
- is likely to avoid that stretch of water.
- "A Streetc Named Desire'
- 44. European city which winner of "It pays to see Victor" contest will visit and attend 1960 Olympic games (Euroean sp.
- 45. Hazard
- Tear with violence Sharpshooter may blame this for his low score.
- 49. River in Germany noted for astles
- 51. Phosphoric solution widely used for metal finishing and rust prevention.
- Weaving frame.
- 54. It's likely that amount of
- It's fikely that amount of insurance owner carries on this will vary with its size. Young hoodlums cutting up on New Year's Eve may well regret letting fly with snow-balls at passing OPPER.

CLUES DOWN

- Instructor's college diploma will hardly be useful if she only has to teach D NCES.
 From those who tip him, cab
- driver makes quite a little on the IDE.

- the IDE. Suitable. South America (abbr.). Prefix of a Victor chemical used in electroless nickel plating.
- Girl's name. Last three words of a truism known to buyers of chemicals See 8 Across

- 10. Term of respectful address to men (plural
- Abbreviation of phosphate used as mineral supplement and conditioner in foods.
- Coaches often make use of such films in training their
- teams. Deadly
- Junk dealer probably would be able to give you some idea of its worth.
- French coin of trifling value. Each time he drives, good golfer will see that this is in the right place.
- F. D. Roosevelt is associated with the New Other nickname of fellow who
- might also be called Bert.
 26. You're smart to proceed with care if you have to rely on this.
 28. One might find this quite stim-
- ulating
- 30. Arrived. 32. Aim of Victor Chemical is to
- its customers. It's generally sad when they have to be destroyed.
 35. Song poems.
 36. Sink swim.

- Song poems.
 Sink swim.
 White fur prized for its fineness and pure color.
 Prefix of an organic chemical used in pesticide formulations.
- What the barber uses to hone razor
- 42. In certain cases, whitewashing is one way some people deal with

- deal with
 47. Hole in the ground.
 50. Lindbergh's across the
 ocean won him world fame.
 52. When there's anything Victor
 can for you, just say
 the word!
 53. Behold.

Rules 1. This is a contest of skill. Study the clue definitions carefully before writing in your answers. There is only one correct solution. If no correct solution is received, those most nearly correct, based on the clue sequence described below, will be selected as winners. Judges have been appointed by Victor Chemical Works, and they will consider all entries and determine the prize winners. By entering, entrants agree that the decision of the judges shall be final and binding. No entries will be returned. All entries become the property of Victor Chemical Works.

2. After you have filled in your answers neatly and clearly, fill out the official entry blank and mail the puzzle and entry blank to: "It Pays to See Victor" Contest, Post Office Box 5907, Chicago 77, Illinois.

Contest, Post Office Box 5907, Chicago 77, Illinois.

3. All entries of solutions to the puzzle must be postmarked before midnight, December 15, 1959, and
received before December 31, 1959.

4. Entries shall be limited to persons over 21 years of
age, and who are residents of the United States, except
employees of Victor Chemical Works, its advertising
agency, and members of their families. Only one entry per person will be accepted.

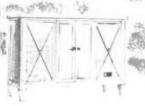
5. The judges will select as prize winners those persons whose entries rank highest. They will select as the first prize winner, the entrant who submits the correct or most nearly correct solution. The clues Down numbered 26, 28, 34 and 42 must be answered correctly or the rest of the puzzle will not be judged. In case of ties, the ties will be resolved in favor of the entrant who submits the correct answer to Clue 6 Across, then Clue 13 Across, then Clue 28 Across, and so on until no ties remain. Should ties still exist, tied entrants will be required to complete in not more than 25 additional be required to complete in not more than 25 additional words the statement. "In the industry, words the statement. "In the industry, it pays to see Victor because ...". Such statements will be judged on the basis of originality and aptness and duplicate prizes will be awarded in case of ties.

- 6. There are 50 prizes, as shown elsewhere in this
- 7. Contest is subject to all Federal, state and local regulations
- Winners will be notified by mail about March 1, 1960

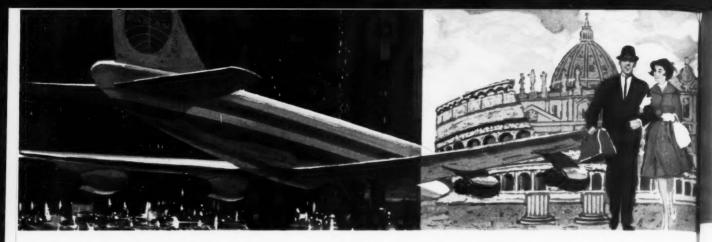












from New York to Europe

"IT PAYS TO SEE VICTOR"

- Let your imagination take wings. Imagine, for a moment, you're the winner of first prize in the new and exciting "It pays to see Victor" contest. Last call for London, Paris, Rome... and the 1960 Olympic games. So, climb aboard this gleaming Pan-American Jet Clipper (along with your partner), and zoom off into the wild blue.
- Though you leave your cares behind as you sweep silently over to Europe . . . the part Victor chemicals play in your life will be much in evidence, even "over there." Look around the cabin as you glide over the Atlantic. The aluminum you see is all bright dipped in a solution containing phosphoric acid. And aren't your stewardesses pleasant . . . personable . . . and lovely to look at! Part of the pleasure of their appearance lies in their uniforms—dyed to a beautiful shade in a bath using formic acid as an acidulant.
- After a few delightful days seeing the sights in London town, you hop over to Paris. Gay Paree—where cuisine is king! Even here, though, dishes have to be washed. And to help assure clean, sparkling results, chlorinated trisodium phosphate is in the dishwashing compound—just like "back home."
- Now, on to Rome and all the excitement and pageantry of the Olympics. Our athletes, with you cheering them on, are sure to pull down a record number of gold medals. One reason for their superiority is that their diet is rigidly watched . . . and well balanced. Tricalcium phosphate added to foods for mineral enrichment helps keep our men in the pink. Minor aches and pains are inevitable, of course. But they're quickly bandaged. Fortunately there's never a shortage of cotton when methyl parathion is the pesticide. PARA is sure death to boll weevils.
- We hope, when you get to Rome, you'll do as our "Romans" do—enjoy yourself and see in examples all around you that "It pays to see Victor."



... IN BRIEF

as the editor sees it . . .

GERM CONTROL . . . With unusual interest, we note that the plumbing and heating people are now climbing on the band wagon in behalf of cleaning out staphylococcus in hospitals. They mention that tough old staph has become immune to penicillin and other antibiotics, and recommend a return to the "sanitary practices of grandmother's day . . . for controlling the growing menace of staphylococcic germ infections in the nation's hospitals." That means, they say, that "good old fashioned hot water and soap combined with plenty of elbow grease is still the best way to kill germs."

This soap-and-hot-water routine for killing germs pops up every now and again, much to the annoyance of our bacteriologists, eminent and otherwise. And the fellows who make the stuff specifically designed to kill germs don't like it either. Because it's based on a fallacy, a fallacy that our medical profession likewise might jot down for future reference.

Now when it comes to soap, we have been one of its staunchest supporters for well over 30 years. We like lots of people to use lots of soap, — and hot water too. But soap doesn't kill germs. It takes a disinfectant or germicide to turn the trick. Soap solutions alone cannot control staph under practical hospital conditions. Somebody should tell our friends at the plumbing and heating information bureau.

WAX FLOORS? . . . "Next to washing dishes, waxing floors is probably the most disliked chore in the home." Thus said Consumer Bulletin for October, magazine of Consumer's Research which quite frequently gets in the manufacturers' hair by its blunt and outspoken criticism of various and sundry

consumer products. Then the consumer magazine goes on to ask the question, should householders wax their floors. And their answer is "definitely yes,"—and they go on to say "It is important to wax regularly and in the right way."

Now, we have not always seen eye to eye with Consumer Bulletin in their evaluation and criticism of certain products. We feel that at times they attempt to evaluate when a true evaluation in terms of consumer understanding is difficult if not impossible. But we have never quarrelled with their complete honesty and good intentions. So when they come out flatly in favor of waxing floors to provide "protection and longer life to the floor materials," we know that their conclusion is backed up with the best research job available.

Although some manufacturers may not agree with their brand recommendations, the article in question is all-told a sensible and understandable discourse of floor waxes and floor waxing for the householder. And a neat bit of publicity to boot.

* * * * * *

QUALITY . . . Quality, or rather lack of it, in liquid, foam and powdered hand soaps dispensed in public washrooms is reputedly bringing squawks from the dear old consuming public. By public washrooms, we do not mean office buildings, factories and the like, but refer especially to railway stations, bus terminals, lavatories along our thruways and turnpikes, and other places whose use is wholly public. Apparently, cheaper and ever cheaper soaps are being dispensed. Most of them must be bought at a price, a real low price else the quality could not be so poor.

No matter how low a price, nor how poor quality, there is always someone who can supdiscovered: a key to hidden treasures of fragrance!

nerone*

(brand of menthenyl ketone)



NERONE, a new Givaudan synthetic aromatic chemical, makes available to the perfumer for the first time the fresh, natural odor effect of the exotic ketone portion of the essential oils.

NERONE is a pure concentrated note, free from the terpene and ester components that would hamper its adaptability, and is extremely stable without any discolor-

ing effects. It enables the perfumer to achieve new and unusual soap and detergent fragrances that are also stronger, more stable and lasting – with increasing independence from essential oils!

NERONE offers fascinating possibilities for the creation of distinctive perfumes for cosmetics and toiletries, and also proves valuable as a fortifier for such essential oils as petitgrain, bergamot, lavender, neroli, vetiver, geranium, lemon. May we send you samples and full information on this new Givaudan development?

GIVAUDAN

SIVAUDAN-DELAWANNA, INC. 321 West 44th Street New York 36, N. Y.

*Trade-mark-Patent Pending

ply a still poorer product at a still lower price. Evidently, this is what has happened to hand soaps in public washrooms. They have hit pretty close to bottom. Most are not perfumed at all, even with a cheap perfume. Most are made, it seems, wholly from tall oil without benefit of any other added fatty acid,—and a low grade tall oil at that. Old time suppliers of honest liquid soaps are undoubtedly amazed.

To blame the supplier is somewhat silly. He will supply just about anything the buyer wants. If the buyer sets a price which will permit supplying only junk, he gets junk. And if the price is still too high, somebody can always add water or in the powdered soaps filler. No, good friends, the supplier prefers to ship a good product, but also at a price. That's the rub,—price. But unfortunately, soap like anything else costs money.

* * * * *

PRICE... And while we are on the subject of powdered and liquid soaps for washrooms, we must admit that we are intrigued by the prices at which some of the stuff is sold. Especially when a specification is involved. How do they do it? How can a soaper sell a soap which meets a specification at a price which is actually below the cost of the ingredients involved? It's the \$64 question, but the answer is simple. The supplier does not meet the specification He ships the soap and trusts to heaven that it is never tested. Otherwise his price would be higher,—and he might not get the order.

Shipping products which do not meet specifications is not wholly chicanery on the part of the supplier alone. Sometimes purchasing departments are involved. Yes, purchasing departments for large, outstanding companies, companies which buy hand soaps in large quantities to supply the needs of thousands of employes in numerous plants. The purchasing department is always interested in making its work look good and well can wink at products which do not meet specifications if the price is right. If the product gets by, who is to know if it contains 35% soap or 20%? And the purchasing department is tabbed as smart because they made a good buy.

Our feeling is that some specifications were

set up mostly to be circumvented, to make pretty reading for the upstairs brass. And as for the manufacturer who quotes to meet specifications, — his honesty can be costly!

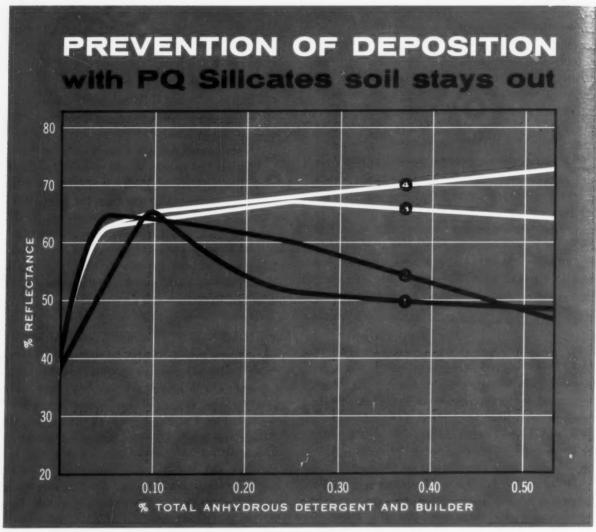
* * * * *

AEROSOL CLINICS . . . If there were any doubts as to the continued interest in aerosols the 562 people attending two CSMA sponsored Aerosol Clinics in New York and Chicago last month would seem to have dispelled them. Getting under way promptly at 9 a.m. on consecutive Saturdays, the clinics ran, in the case of the New York version, until 5:15 p.m., and held their audiences from start to finish. Both program and manner in which the clinics were run were well received. The idea is a good one and could stand repeating, maybe on an annual basis.

science... From cigarettes to aspirin, from peanut butter to shampoos, advertising has gone so terribly scientific that it hurts. The Madison Avenue boys sure have gone off the deep end for science in recent months. The TV commercial that does not include a few really scientific sounding names or show a fellow in a white coat making a scientific test just doesn't rate these days. Most of our advertising fellows wouldn't know sulfuric acid from snuff, but that hasn't stopped them in a wholesale invasion of the world of science.

Did we say science? Well, most of it is a sort of pseudo-scientific jargon which undoubtedly must impress the unknowing. The copy must be written with one eye cocked at the Federal Trade Commission and the other on the cash register. But it sounds scientific as old hell. It must do much to reassure the users of the products advertised that they are protected against the things which "ordinary products" may bring upon the unsuspecting. It must give them the feeling that the great world of science stands guard over them if they use the right product, a nice warm feeling of security.

For us, we wouldn't do one solitary thing to change these "scientific" commercials. In fact we prefer them to most of the moronic programs to which the listening, reading and watching world is subjected. They really give us a belly laugh.



Prevention of deposition of ilmenite on cotton cloth at 60° C.

- 60% dodecyl benzene sodium sulphonate;
 40% sodium sulphate
- pure synthetic detergent
- 60% synthetic; 40% Metso Granular, sodium metasilicate pentahydrate
- 60% synthetic; 40% C sodium silicate (ratio %Na₂0:%SiO₂, 1:2.0)

More soil is removed when you build your detergent with a soluble silicate. Just as important is silicate's detergent action in keeping the soil from redepositing on the cloth.

Using one of the standard methods for determining the prevention of deposition, the use of sodium silicate builders as shown gives much better protection on cotton cloth over a wide range of concentration than alkyl aryl sulfonate without the silicate.

PQ silicates are complete builders for your household and industrial detergent products. They perform efficiently and economically in all five functions—emulsification, saponification, deflocculation, suspension of soil as well as prevention of redeposition.

Our technicians will be pleased to discuss how to increase the silicate solids in your formulations at reduced cost.

PQ SOLUBLE SILICATES



PHILADELPHIA QUARTZ COMPANY

1152 Public Ledger Bullding, Philadelphia 6, Pa.

Associates: Philadelphia Quartz Co. of Calif. Berkeley & Los Angeles, Calif., Tacoma, Wash.; National Silicates Limited, Toronto, Canada Distributors in over 65 cities

PQ PLANTS: ANDERSON, IND.; BALTIMORE, MD.; BUFFALO, N. Y.; CHESTER, PA.; JEFFERSONVILLE, IND.; KANSAS CITY, KANS.; RAHWAY, N. J.; ST. LOUIS, MO.; UTICA, ILL.

SOAP and CHEMICAL SPECIALTIES

as the reader sees it . . .

"Lestoil" IS in Canada Editor:

I just happened to note on page 184 of the August issue of Soap & Chemical Specialties a paragraph mentioning soap deals in Canada, in which it is mentioned that "Lestoil" has not yet invaded the Canadian market.

This is an error. "Lestoil" has been distributed in the Province of Ontario since the spring of 1958 and since then has spread into Quebec, Nova Scotia, New Brunswick, Newfoundland and Prince Edward Island.

"Lestoil" in Canada is backed by the same heavy saturation TV spot advertising for which it has become famous in this country.

Just thought you'd like to set the record straight.

Donald C. Heath, Executive director, Jackson Associates, Inc. Holyoke, Mass.

P.S. It's true, you won't find any "Lestoil deals"-we don' make 'em.

To Mr. Heath and the folks at Adell Chemical, makers of "Lestoil," we offer our apologies. An unusually reliable source, as the papers say, failed us. Ed.

Pro Degrees For PCO's

Editor:

I have been a subscriber and avid reader of *Soap and Chemical Specialties* for over 20 years. This is the first time I have ever written a letter to the editor. However, an editorial in your Sept. 1959 issue bothered me when I read it and has continued to irritate me. The editorial referred to is on page 47 of the September issue, concerning the State of Louisiana, requiring a degree in order to be a pest control operator. No degree—no busi-

ness, creating what you call a closed corporation.

For years we have been trying to raise the standards of the entire sanitation industry and, if a state voluntarily comes along and wants the licensed owner of a pest control firm to have the background a degree assures him, I feel it is a very strong step in the right direction.

If you want an example of a bad closed corporation deal, study the law of the structural Pest Control Board for the State of California. When the law was set up by the Pest Control Operators, it carried the usual 'grandfather clause' for the firms then in business. There is only one way to become a licensed pest control operator in the State of California, one is to work one year as an apprentice to a licensed structural pest control operator, which entitles the apprentice to take the examination.

Regardless of your academic education or professional standing in the insecticide industry, these rules apply. For example, California has many nationally prominent entomologists such as Dr. Metcalf, former president of ESA. If he wanted to go into the pest control business in California he

(Turn to Page 107)

"HER HONOR", Mrs. Robert F. Wagner, wife of the mayor of New York City, in a Manhattan supermarket, demonstrates to leaders of women's organizations procedure for participating in "Own a Bit of America" (OBA) program. Mrs. Wagner purchased various products bearing OBA labels at Oxford Market, 907 Madison Ave., New York, and then explained how labels, ranging in value from five to 25 cents each, are redeemed for free U.S. Savings Stamps by mailing them to Box 1776, Mount Vernon, N. Y. In return, customer receives U.S. Savings Stamps in 25 cent denominations and a free stamp book. When book is completed, she receives a \$25 U.S. Savings Bond Marshall S. Lachner, originator of OBA idea, and president of B. T. Babbitt, Inc., New York first company to join OBA plan, explained theory of program. He pointed out that it costs the government nothing at all. "Manufacturers participating pay all costs for advertising this plan, and it costs consumers nothing extra since the price of the product remains the same", according to Mr. Lachner. He also expressed the hope that "all American companies interested in helping the Treasury Department sell more Saving Stamps and Bonds will participate." OBA offers a "strong new force in the fight against inflation", Mr. Lachner declared.



THERE'S A **PROCTER & GAMBLE PRODUCT** FOR EVERY





neutral synthetic detergent and wetting agent whose active ingredient is mainly sodium alkyl sulphate. Excellent sudsing, wetting, dispersing and penetrating properties. Ideal for paste and liquid shampoos, bubble baths, liquid detergents, liquid car washes, liquid floor cleaners, insecticides, glass cleaners, rug and upholstery cleaners.



A neutral nonionic synthetic detergent of the 100% alkyl-phenol

ethylene oxide condensate type. A light-colored liquid with a clean, pleasant odor. Its superior

detergent, wetting and emulsi-fying properties offer excellent

performance in liquid detergents,

sanitizer detergents, self-emulsi-fying solvents, laundry deter-

gents, glass, textile and dairy

cleaners, insecticides, and bottle washing compounds.

AMBER GRANULES

A neutral 88%, 42°C titer type soap of outstanding purity and uniformity. Well suited for the preparation of paste or gel-like products because of its high titer. Its granular form makes it ideal for powdered products. Excellent for the compounding of hand cleaners, paste cleaners, polishes, lubricants and coatings.



NEED

AB GRANULES

A neutral synthetic detergent, wetting and emulsifying agent of the 40% active sodium alkyl aryl sulphonate type. A white spray-dried product that can be used effectively in the blending of bubble baths, car washes, dishwashing compounds, dairy cleaners, insecticides, laundry detergents, rug and upholstery cleaners.



IVORY BEADS

A medium titer, neutral spraydried white soap of exceptional purity and quality. Well suited for compounding products where a mild but effective soap is required-hand soaps, polishes, protective creams, dishwashing compounds and paper coatings



ES PASTE

A specially developed synthetic detergent whose active ingredient is mainly modified sodium alkyl sulfate. Offers exceptional alkyl sulfate. Offers exceptional efficiency and stability over a wide range of operating condi-tions. Its excellent wetting, pene-trating, sudsing, dispersing and emulsifying properties make it well suited for the preparation of liquid shampoos, bubble baths, liquid detergents, liquid floor cleaners, insecticides, car washes, emulsion cleaners.

Procter & Gamble will gladly supply you with information on how you can save time and money when you formulate with Procter & Gamble products. You can also get technical help in connection with their use by writing to:



BULK SOAP SALES DEPARTMENT P. O. BOX 599, CINCINNATI 1, OHIO



K LIQUID

A modified, highly concentrated ammonium lauryl sulphate— modified for increased sudsing and mildness. Exceptionally low cloud and pour points. Highly fluid and easy to handle. Ideal for clear liquid shampoos and liquid detergents where high foaming is required.





Detergents... Cleansers... Soaps...

Aerosols

Detergents

Dishwashing Compounds

Floor scrubs

Glycerine

Hand cleaners

Laundry soaps

Liquid soaps

Metal cleaners

Potash soaps

Scouring cleansers

Shampoos

Shave products

Soap powders

Starch

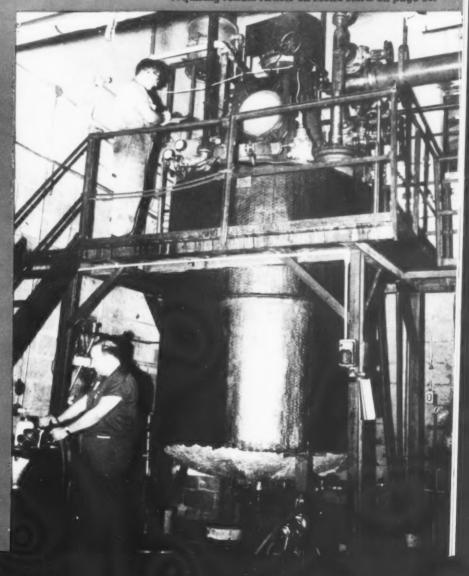
Steam cleaners

Medicinal soaps

Textile detergents

Toiletries

Toilet soaps and other detergent and soap products A 2,000 gallon mixing unit in plant of Mona Industries, Inc., Paterson, N. J., for the production of sequestrants as well as surface active agents. Unit shown operates under vacuum or conditions requiring reflux. Article on Mona starts on page 55.



When it comes to

SODIUM COMPOUNDS

SODIUM ALUMINUM SULFATE SODIUM BIFLUORIDE (Sodium Acid Fluoride)

SODIUM BISULFITE, ANHYDROUS (Sodium Metabisulfite)

SODIUM FLUOBORATE

SODIUM FLUORIDE

SODIUM METASILICATE.

CRYSTAL AND ANHYDROUS

SODIUM PHOSPHATE, DIBASIC

SODIUM SILICATE

SODIUM SILICOFLUORIDE

SODIUM SULFATE

SODIUM SULFITE, ANHYDROUS

SODIUM TRIPOLY PHOSPHATE

SODIUM THIOSULFATE (HYPO) (Sodium Hyposulfite)

TRISODIUM PHOSPHATE

TETRASODIUM PYROPHOSPHATE



Come to

GENERAL CHEMICAL

Name to remember in sodium compounds is General Chemical. For 60 years, General has been a primary producer of sodium-based compounds vital to countless processes and products. Those listed here are available in a variety of grades and strengths suited to every need. They are available from key distribution points, coast to coast. Each offers exceptionally high quality and uniformity. Why not find out today how General can fill your requirements? Write or phone for specific information.

Basic to America's Progress



GENERAL CHEMICAL DIVISION

40 Rector Street, New York 6, N. Y.

Silicates in Detergents

By Walter L. Schleyer,

Research & Development Department Philadelphia Quartz Co.



HE fundamentals of the detergency process have been studied for many years. Results have been reviewed periodically (1). In practice, it is fairly clear that the nature of the surface to be cleaned, the nature of the soil, the nature of the water, and the nature of the washing procedure, including immersion time, temperature, agitation, and cycle of operations, all help to determine the conditions for most efficient soil removal.

Important properties of detergent chemicals are surface activity or high negative electrical charge. These cause a separation of the soil from the surface to be cleaned and of the soil particles from each other, thereby aiding suspension in the cleaning or rinse bath. Surface activity is exhibited by particles of fairly high molecular weight or by micellar aggregates of appropriate polarity. Accumulation of high electrical charge on individual particles is typical of ionizing polymeric substances, also known as polyelectrolytes.

Various types of organic and inorganic materials possess detergent properties. Frequently, best results are obtained with combinations of several chemical classes of detergents, probably because no single substance is ideally suited to perform all the functions which are part of the complex washing process. In some industrial cleaning processes, the conditions are

well defined and detergents may be tailored quite closely to requirements. In consumer detergent products, it is necessary to formulate for versatility in type and method of application.

Inorganic Detergents

In the presence of synthetic organics or soap, inorganic detergents are often regarded as mere detergency builders. It is true that they contribute specific subsidiary effects such as alkalinity, buffering capacity and water softening. However, the best inorganic builders are detergents in their own right. Those alkalies which are neither polyelectrolytes nor surface active have little value in detergency except where the presence of divalent anions is the only need.

The effective inorganic detergents are alkali silicates and polyphosphates. They are similar in detergency power and exhibit approximately equal synergistic action with organic synthetics (2). The silicates, however, have some special advantages that deserve attention. For example, they have very good stability in cleaning baths during prolonged use at elevated temperatures. They have excellent buffering capacity. They are low in cost. They provide much needed protection against the corrosive effects of phosphates and synthetics.

On the other hand, silicates do not sequester water hardness by forming soluble complexes with calcium and magnesium. Instead, a precipitate is formed. However, this is usually very fine and disperses easily. Silicates do sequester iron and thus prevent rust staining better that some other alkalies (3).

Silicates and polyphosphates clearly complement each other and are a good example of materials which often will be more effective in combination than either substance can be separately. Within the range where changes in relative proportion of each ingredient have little measurable effect on performance, the final formulation may well be chosen on the basis of cost.

Properties of Silicates

Physical and chemical forms: Soluble silicates are commercially available in various physical and chemical types. Colloidal silicates are those ranging in alkalinity from °SiO2 °Na2O = 1.6 to 3.75 and from o SiO / o K O = 2.1 to 2.5. These are furnished as solutions of various solids contents and corresponding viscosities. The solutions are normally opalescent but some are especially clarified to yield a water-clear appearance. Easily soluble, hydrated powders are available at "SiO2/ $^{\circ}$ Na.O = 2.0 and 3.22. Anhydrous powdered sodium and potassium silicate glasses are likewise on the market, but would be chosen for detergent products only where a controlled, relatively slow speed of solution in water is desired.

Sodium metasilicate (Na₂-SiO₃, anhydrous, pentahydrate or nonahydrate), sodium sesquisilicate (Na₃HSiO₄,5H₂O) and the highly alkaline orthosilicate (Na₂-SiO₃,2NaOH, hydrated or concentrated) are known as crystalloidal because they may be crystallized from solution. They are marketed in granular or powder form only and dissolve rapidly in water.

Table I lists the individual members of the silicate family of products and some of their characteristics.

Corrosion prevention: The protective effect of silicates against the corrosive attack on metals by organic synthetics and phosphates in detergents is now well recognized (4,5). Protection is especially important for aluminum. A recent patent states, "The corrosion inhibitor most effective in

inhibiting corrosion of aluminum by alkaline phosphates is silicate of soda" (6). An interesting electron microscope study of the mechanism of the inhibition has likewise appeared recently (7).

Suspending power: The suspending power of silicates reflects their surface activity and their polyelectrolyte character.

The surface activity of silicates was measured by Liddiard (8). Surface tension and interfacial tension, here more pertinent, were found to be lower than for equivalent solutions of other alkalies, then commonly used. As might be expected, the colloidal, relatively siliceous types ${}^o_o \mathrm{SiO}_2/{}^o_o \mathrm{Na}_2\mathrm{O} = 2.0$ and 3.2 exhibit greater surface activity than the group of crystalloidal silicates (ortho, sesqui and metasilicate). This is in line with

observations on the relation between silica to alkali ratio and molecular weight (9a).

The ability of soluble silicates to lower the zeta potential of suspended siliceous particles was measured accurately in connection with techniques of television screen formation (10). Potassium silicate is required in this case, but the polyelectrolyte properties of sodium silicate solutions would be quite similar.

Sodium silicates of various silica to alkali ratios have been tested for suspending power on a number of soils (11) and for capacity to remove soil from several different types of soiled test swatches (2). Especially striking is their ability to prevent the deposition, of suspended soil on cloth and to prevent redeposition as demonstrated by washing a soil-

Table I. Commercial soluble silicates commonly used in detergent products

		Liquid, col	loidal sili	cates	
weight ratio %SiO,/%Na,O	mole ratio SiO/Na,O	solids %SiO	content %Na_O	viscosity Cps. at 20° C.	appearance
3.22	3.32	28.7	8.9	180	opalescent
3.22	3.32	29.5	9.2	400	opalescent
2.9	3.00	31.9	11.0	960	opalescent
2.5	2.58	26.5	10.6	60	clear
2.4	2.47	33.2	13.9	2,100	opalescent
2.0	2.06	29.4	14.7	350	opalescent
2.0	2.06	36 0	18.0	70,000	opalescent
1.8	1.85	24 1	13.4	60	clear
1.6	1.65	31.4	19.7	7,000	opalescent
%SiO,/%K,O	SiO,/K,O	%SiO,	% K .O		
2.5	3.92	20.8	8.3	40	clear
2.1	3.30	26.2	12.5	1,050	opalescent
	Po	owdered, co	lloidal si	ilicates	
weight ratio	mole ratio	solids	content	approx.	pH of
%SiO ₂ /%Na ₂ O	SiO,/Na,O	%SiO,	%Na O	screen sizing	1% solution
3.22	3.32	61.8	19.2	1	11.0
2.0	2 06	54.0	27.0	thru 65 mesh	11.8
		Dry, crysta	lline silic	ates	
	W	so'ids	content	approx.	pH of
chemical name	formula	%SiO,	%Na,O	screen sizing	1% solution
odium metasilicate,				1	
hydrated	Na SiO 5HO	28.7	29 5	,	12.6
odium metasilicate,				1	
anhydrous	Na_SiO_	45 5 min	51.0	thru 10 mesh,	12.8
dium sesquisilicate,	- "			on 65 mesh	
hydrated	Na HSiO, .5H,O	24.2	36.7		12.8
dium orthosilicate,				1	
concentrated	Na_SiO_ · 2NaOH	27.5 min	60.8)	13.1
				SOAP and CHEMIC	II SDECIALTI

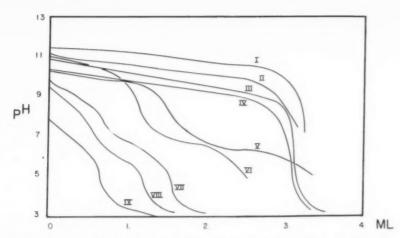


Fig. 1. Buffer capacity of industrial alkalies; change in pH on addition of 0.2N hydrochloric acid to 100 ml. of solutions containing 0.02% Na_O.

I. Caustic soda; II. Sodium metasilicate; III. Sodium silicate, %SiO_/%Na_O = 1.6; IV. Sodium silicate, %SiO_/%Na_O = 2.0; V. Sodium carbonate; VI. Sodium orthophosphate; VII. Tetrasodium pyrophosphate; VIII. Sodium tripolyphosphate; IX. Sodium t

ed cloth together with a clean one in a silicate solution (2, 12). Carter has attributed his results to a combination of suspending power and formation of a thin film on the cloth which is easily rinsed away. Persistence of the effect at low silicate concentrations means that deposition and redeposition are prevented during rinse cycles. Other applied tests have shown the emulsifying power of silicates (13, 9b), their wetting action (14) and other specific functions that play a role in detergency and originate in the fundamental silicate properties.

ium tetraphoshate.

These tests have demonstrated clearly that silicates rank among the best available inorganic detergents and builders in general effectiveness. Precise applied studics also tend to show the importance of the variables which may occur in the use of consumer detergent products. Differences in results with different soils and different types of test cloths are especially instructive (2). In practice, the detergency power of silicates is often enhanced further by synergistic action with other ingredients.

The power to keep suspended particles dispersed is also utilized in ore flotation procedures and in deflocculation of clay. In the latter process, a stiff mud may be liquefied on the addition of a very small quantity of silicate. This is done whenever fluid clay suspensions of maximum solids content are desired, for example, in slip casting or pumping of clay sturries.

Buffering capacity: Inspection of the titration curves of commercial alkalies with standard acid (Fig. 1) shows clearly that silicate solutions maintain an almost constant, rather high pH until they are practically completely exhausted. Other alkalies, with the exception of sodium hydroxide, show considerably more rapid decrease in pH on the addition of acid. As a result, silicates are about twice as effective buffers as other alkalies in cleaning processes which involve acidic soil or the need for alkaline hydrolysis, including saponifica-

Preservative action: A small amount of sodium silicate as an additive is used to prevent rancidity in soap products, including toilet bars (12, 15). This effect appears to be specific for sodium silicate, and not the result of pH or buffering capacity.

Retention of fabric strength; Numerous a consecutive—washing tests have shown that washing clothes in silicate solutions preserves the tensile strength better than other alkaline solutions at the same pH. When cotton goods are bleached as part of the commercial laundering operation, the high alkalinity normally present can be quite harmful. Strength loss is considerably smaller with sodium silicate than with a proportionate amount of caustic soda (16).

Silicated Detergents

It is convenient to classify commercial detergent products according to the four common methods of manufacture and their resulting physical forms.

Spray dried detergents: Spray dried detergents are intended mainly for household service. A liquid colloidal type silicate, usually ranging in composition between "SiO, "Na,O = 1.6 and 2.1. is preferred. Sodium silicates in this range probably display optimum detergency value. For a given total solids concentration they also possess lower viscosities than either more alkaline or more siliceous compositions (9c). Viscosity is, of course, an important factor in a detergent slurry, However, when the polyphosphate in the slurry is kept from hydrating. the effect of adding silicate while the total solids content is held constant is to decrease the viscosity (17).

In addition to improving the end use properties of the formulation, sodium silicate aids in the manufacturing process. It imparts strength, uniformity and free flow to individual beads of spray dried powder, thereby keeping the spheres from breaking and dusting. At the same time it stabilizes the tripolyphosphate against reversion to orthophosphate.

In the absence of sodium silicate, the high temperature form of sodium tripolyphosphate (Form I) is said to give rise to slowly soluble, hard, sand-like particles (18). On the other hand, the low

temperature form (Form II) has been described as normally useable only after it has been allowed to hydrate. This takes time and is accompanied by reversion. However, silicate permits Form II to be packaged without subsequent caking even when the phosphate is only very incompletely hydrated. This freedom from caking is obtained despite a higher moisture content in the finished product (18). Thus, it appears to be rather difficult to spray dry an acceptable heavy duty household detergent unless silicate is present in the slurry, regardless of the form of tripolyphosphate preferred by the individual manufacturer.

The spray drying process is often designed with the restrictions in mind which the properties of tripolyphosphate impose. Some care is needed in reconciling these restrictions with the properties of sodium silicate. Just as tripolyphosphate for example, hydrates, and may revert rapidly to orthophosphate if conditions are not favorable (4), so silicate is best handled within a certain range of operating conditions. It is generally desirable to keep storage time of the slurry to a minimum, since other ingredients can act as acids upon the silicate, with adverse effect on the clarity of solutions of the spray dried powder and on rapid and complete solution. The silicate will necessarily undergo more extensive changes when it is present in relatively small amount. It will be clear that a given amount of acidity, distributed over a larger content of silicate, will cause a smaller shift in silica to alkali ratio. In many cases, product quality can therefore be improved by increasing the silicate concentration level. It has been found that insolubles are practically absent from freshly spray dried material when polyphosphate and silicate solids are present in approximately equal amounts of 25% each (19). Nor do insolubles develop in storage (4), provided the detergent powder is kept in a fairly tight type of container (19).

The silica to alkali ratio of the silicate is likewise important in determining whether insolubles are generated to any visible extent. Similarly, it has been found that mixtures of tripolyphosphate and tetrasodium pyrophosphate are considerably more compatible with silicate than corresponding amounts of either phosphate alone. This was true both with respect to handling ease of the slurry (17) and to storage properties of the spray dried powder (19). These results may be due to the differential hydration tendencies of the phosphates, as well as to the fact that the reversion of tripolyphosphate deprives silicates of stabilizing alkali and thus is one of the important acidic influences.

Typical Product

Typical spray dried household products carry between four and 11 per cent sodium silicate solids. This choice of concentration range appears to be based largely on the corrosion inhibiting action of silicates. Equal performance at lower cost would result from the builder formulation mentioned earlier, namely, approximately onehalf phosphate/one-half silicate (19). As already indicated, such formulations have good storage properties. Furthermore, slurries of a corresponding composition would be convenient to handle, since they are less viscous and retain greater fluidity on standing than slurries richer in complex phosphate (17).

Similarly, slurries made up of 50 per cent synthetic detergent, 25 per cent sodium silicate, five per cent organic sequestering agent and 20 per cent sodium sulfate (solids basis) proved low in viscosity and had remarkably little tendency to thicken on standing. The slurry was spray dried into powders having good solubility and aging properties (19).

On the subject of silicate content, it is interesting to note that commercial laundries use at least 15 per cent sodium silicate solids (anhydrous basis) in their washing compounds, while at the same time the "active" ingredient is soap. In many laundries, straight silicate is used in the "break" cycle.

For removing the difficult soil from the collars and cuffs of white Dacron shirts, soaking overnight in metasilicate or orthosilicate solution has been found especially effective (20). The presence of sufficient silicate in the wash cycle has likewise been found helpful in handling synthetic fabrics, for example, in washing nylon overalls at low temperature (21). Although wash-and-wear garments are still relatively unimportant, their use is growing rapidly and many families own at least some such items. Their appearance seems to have had a considerable impact on the design of automatic laundry equipment. Yet modern home laundry detergents containing an adequate amount of sodium silicate appear to be versatile enough to cope successfully with the new fibers as well as the old.

(To be Concluded)

References

- Recent summaries: (a) J. C. Harris, Textile Research J. 29 (2), 99 ff (February, 1959). (b) R. D. Stayner, "Mechanism of Cotton Detergency", Oronite Chemical Co., 1958.
- For example, see R. C. Merrill and R. Getty, Ind. Eng. Chem. 42 (5), 856 ff (May, 1950).
- 3) Silicate P's & Q's (Philadelphia Quartz Co.) 20 (8), (August, 1940).
- J. R. Van Wazer and M. E. Tuvell, J. Am. Oil Chem. Soc. 35 (10), 552 ff (October, 1958).
- R. Getty, N. W. McCready and W. Stericker, A.S.T.M. Bulletin #205, 3 ff (April, 1955).
- W. C. Krumrei, U.S.P. 2,877,186 (March 10, 1959), The Procter & Gamble Company.
- H. W. McCune, J. Electrochem. Soc. 106 (1), 63 ff (January, 1959).
- P. D. Liddiard, Chem. Age (London) 51, 317 ff and 341 ff (September 30 and October 7, 1944).
- J. G. Vail, "Soluble Silicates, Their Properties and Uses", ACS Monograph Series #116, Reinhold, New York, 1952: a) Vol. I, p. 98 ff; b)
 Vol. I, p. 273 ff; c) Vol. I, p. 85 ff.
- R. Edelberg and F. Hazel, J. Electrochem, Soc. 96 (1), 13 ff (July, 1949).

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Big Little Surfactant Producer

By W. W. Lewers,

Consulting Chemist, New York

HEN Mona Industries, Inc., Paterson, N. J., began making surfactants eight years ago it was largely a hand mixing operation. Today, the latest chemical processing equipment does the work. Also in sharp contrast to the early days of the company is gross sales volume, which has multiplied over twenty-fold since the founding of Mona in 1951.

Mona was founded in August, 1951, by a small group who today comprises the concern's major executives. Dr. Karl Heyman is president and technical director in charge of production as well as research and development. R. H. Sommer is vice-president in charge of sales. W. O. Schlimbach is gen-

Multi-stage production unit at Mona plant.

eral manager and economic coordinator.

A close knit, enthusiastic team of chemists, engineers, and management specialists has made this phenomonal growth possible. First things come first, and with Mona this means the customer. The whole organization is geared to render both rapid and efficient technical service. Carefully planned manufacturing schedules insure prompt deliveries. Basically, the overall objective is accomplished by a coordinated program involving laboratory, plant, and customer relationships.

Mona's laboratories, which are fully equipped with all modern facilities, serve three basic requirements. First of these is basic research on new, potentially useful, compounds. This work is both fundamental and practical. It is directed toward improving and augmenting the line as a whole. Studies of this type are based on the collective thinking of the entire executive group and are distinct from application research directed toward specific customer requirements.

The remaining two functions

FOUNDERS PONDER: Founders and present officers of Mona Industries, Inc., are, left to right, R. H. Sommer, vice-president in charge of sales: W. O. Schlimbach, general manager and economic coordinator, and Dr. Karl Heyman, president and technical director in charge of production and research.



NOVEMBER, 1959



Bulk storage tanks for raw materials and finished products at Mona plant.

of the laboratory are concerned with quality control and problems relating to the end use functions of the individual customer. With rigid quality control conventional tests have been augmented by specialized procedures to meet the requirements of each specific end use. By this procedure Mona can produce, quickly, modified products which fit the many new and off-the-beaten track applications of their many clients in an ever increasing number of industries.

Specialized Plant Functions

Raw materials are purchased either in tank car or tank truck quantities. Economy in raw mater-

ial and finished product handling is effected by a fully integrated system of pumps, which deliver raw materials to the reactors and, in addition, quickly transfer finished products to tank trucks or finished product storage. Thus, simplification and automatic control effect savings which are passed on to the customer. A battery of stainless steel reactors range in size up to 2000 gallons. Ten storage tanks for raw materials and finished products run between 4000 and 6000 gallons capacity.

The Paterson, N. J., plant covers approximately 20,000 square feet of manufacturing, warehouse, laboratory and office areas. Mona

Southern, located at Greenville, S. C., comprises a manufacturing unit and warehouse.

Customer Relations

Mona accounts include firms ranging from the single drum to the multi-tank car class. Thus it can be truly said Mona serves industry as a whole. Ability to retain customers has proven to be a significant factor in Mona's development. The statement that satisfied customers are the best advertisement is attested by many unsolicited complimentary letters which have been received from the large group of repeat order customers.

In addition to sales to all industrial areas of the United States Mona exports to the following countries:

Trible Contract to the	
North America	South America
Canada	Uruguay
Mexico	Chile
Europe	Asia
Germany	Japan
Switzerland	India
Holland	Pakistan
Norway	Australia
Sweden	
Finland	

Products and Applications

Mona produces and/or markets a complete line of surface active agents designed to obtain better detergency, wetting, penetration, emulsification, dispersion, sequestering, chelating and complexing, either in industrial applications or in compounding all types







One section of Mona's research laboratory.

of chemical specialties. The Mona line includes: a series of fatty alkylolamides ("Monamines") that are conventional fatty acid-amine condensates. They do not represent individual chemicals but consist of mixtures of reaction products which are produced under strict laboratory control. Monamines, employed as detergents, wetting agents, emulsifiers, dispersing agents and thickeners, are suitable for a variety of different applications. Typical are the liquid cleaners, which include hand soaps, shampoos, pine oil soaps, scrub soaps, dry cleaning soaps, salt water soaps, spotting fluids, rug cleaners and dishwashing detergents. Other applications include waterless hand soaps, cosmetic lotions and creams, textile detergents, leather and fur preparation, dustless soap powder, emulsifiable waxes, polishes, buffing compounds, metal cutting oils, pigment dispersions, paint removers and agricultural sprays.

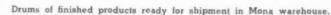
Mona also produces a group of fatty acid amine condensates ("Monamids") having increased alkanolamide content. Compared with the conventional 100 per cent active fatty acid amine condensates the "Monamids" are virtually 150 per cent active. They require considerably less neutralizing agent to

bring them to a neutral pH. Compared with "Monamines" or other fatty acid condensates of this type the "Monamids" require only one fifth the acid to reach a pH of 7. Reduced odor and extremely light color have found favor with cosmetic manufacturers. Used in conjunction with alkyl-aryl sulfonates. fatty alcohol sulfates, as well as nonionics, superior thickening characteristics are obtained, "Monamids" act as foam boosters and stabilizers. The products have been used successfully in shampoos, bubble baths, as well as liquid industrial, institutional, and household

cleaners.

A group of two powerful wetting and penetrating agents is marketed by Mona under the trade name "Monawets." "Monawet" MO-70% is the sodium salt of di (2-ethylhexyl) -sulfosuccinic acid, while "Monawet" MM-80% is the sodium salt of di-dexyl sulfosuccinic acid. "Monawet" MM-80% has better hard water and salt resistance. "Monawet" MO-70% has found widespread use for wetting out purposes and the preparation of dispersions and emulsions employed in the fields of textiles. cosmetics, rubber, paper, leather, paint, metal working, emulsion polymerization, graphic arts, and mining. In addition, it is used as a glass cleaner, a dry cleaning spotter, a dry cleaning detergent, for washing fruits and vegetables, fire fighting, wall paper removal and laving dust. "Monawet" MM-80% is being used in agricultural sprays, soldering fluxes, electroplating baths, leaching of ores and slags, paper treating, emulsion paints, emulsion polymerization, and as an additive to increase the detergency and improve the hard water resistance.

"Monaquests" are organic sequestrants. Chemically they are derivatives of amino polycarboxylic acids. The "Monaquests" comprise the following four chemical types and their modifications:







A section of Mona's control laboratory.

Ethylene diamine tetra acetic acid (EDTA)

(Hydroxyethyl) ethylene diamine tri acetic acid (HEDTA) Di (hydroxy ethyl) glycine (DHEG)

Diethylenetriaminepenta-acetic (DPTA)

The sodium salts are the most conveniently used forms.

Sequestration, being an equimolecular reaction, theoretically requires one molecule of sequestering agent for each metal ion. For this reason it is the atomic weight of the metal that will determine the amount of metal ions which will be inactivated through a certain amount of sequestrant. As an expression of the extent to which sequestration has occurred the formation constant K has been introduced. It defines the ratio of metal which occurs as chelate to the metal in the ionic state. When K is very large the ion concentration is very low and the sequestration has progressed satisfactorily. For a good sequestering agent the value of K will reach such large figures that it is inconvenient to deal with them. For this reason the logarithm of K is commonly used. Tabulated below are the log figures for a number of metal ions at 68 F. in normal K Cl solution using EDTA as the sequestering agent. Best formation and greatest stability are

shown by the metals with the high-

est Log K figures.

Metal	Ionic Charge	Log K	Atomic Weight
Iron	Fe +++	25	56
Chromium	Cr + + +	24	52
Nickel	Ni +++	18.45	59
Copper	Cu ++	18.38	64
Lead	Pb ++	18.20	207
Iron	Fe ++	14.22	56
Manganese	Mn ++	13.47	55
Calcium	Ca+	10.59	40
Magnesium	Mg	8.69	24
Barium	Ba	7.76	137
Sodium	Na +	1 66	23

Thus it is apparent that the amount of sequestrant which will chelate 40 grams of calcium will

produced by Mona permits the user to select the agents best fitted (Turn to Page 184)

be able to chelate 207 grams of lead. If the ions of different metals are present in a solution the sequestering agent will inactivate those ions which will vield the most stable chelates. In a mixture of ferrous and ferric iron salts the ferric ions will be inactivated, preferentially. Thus for a more efficient operation, it may be desirable first to oxidize the ferrous ion.

Substantial quantities of electrolytes have a deleterious effect on chelate stability. Water-miscible organic solvents, on the other hand, increase the stability of the metal complexes due to the influence of a reduced dielectric constant of the solution. Chelate stability varies markedly with varying pH. This

is of particular importance when iron ions must be sequestered. The

extensive series of chelating agents

Shipping room at the Mona plant in Paterson, N. J.



AOCS Meets in Los Angeles

Synergistic action of antibacterial agents in deodorant soaps and detergents reported on during session on soaps and detergents

By John W. McCutcheon

ETERGENTS, soaps, and allied subjects received attention at an all-day session, part of the 33rd annual fall meeting of the American Oil Chemists Society. The group met at the Statler Hilton Hotel, Los Angeles, Sept. 28 through 30, A report on the synergistic action of antibacterial ingredients in deodorant soaps and detergents was one of the highlights of the 12 papers presented in this session. Entitled "Studies in the Development of Antibacterial Surfactants," the report is authored by W. M. Linfield, R. E. Casely, and D. R. Noel of Dial Research Laboratories, Armour and Co., Chicago.

Mixtures of hexachlorophene and trichlorcarbanilide (TCC) or mixtures of TCC and 2,2'-thiobis-1,6-dichlorophenol (bithionol) incorporated in toilet soap show a marked synergism with respect to antibacterial properties, according to Dr. Linfield's report. One per cent of germicidal combinations (variously proportioned) was incorporated into a conventional toilet soap base obtained from the saponification of a blend of 20 per cent coconut oil and 80 per cent inedible tallow. From the blended soap chips a one per cent aqueous soap solution was obtained, corresponding to an 0.01 per cent concentration of germicidal agent. Tests showed a 50/50 combination of either TCC and bithionol or hexachlorophene and TCC to be most active, both quantitatively and spectrum-wise.

In view of the water insolubility of TCC, nonionics were used as solvents. It was thus discovered that small amounts of nonionics step up the antibacterial activity of TCC in vitro. At higher levels of nonionic the antibacterial agent is neutralized and loses its effectiveness. Potentiation of either hexachlorophene or bithionol by nonionics is negligible, according to Dr. Linfield.

The tests reported here show that in vitro results do not always correlate with in vivo antibacterial activity and that germicidal activity shown in handwashing procedures does not always mean good deodorant effect. TCC plus hexachlorophene does show up well in all three types of evaluations, but certain other compounds in common use produce good handwashing tests only, the authors point out, while others are good deodor-

Dr. Warner M. Linfield. director of research for grocery products division of Armour. AOCS speaker.



ants and show poor in vitro activity.

Varying results stem from differences in surfaces, Dr. Linfield explained. In vitro tests do not measure the skin substantivity of the test compounds. Also the pores of the skin on the palm of the hand are different from those in the underarm area, which are much larger and retain more of the deodorant.

A 50.50 combination of hexachlorophene and TCC was found an effective inhibitor of anti-biotic resistant micrococci; of gram negatives (E. Coli and S. typhosa) and of pathogenic fungi (T. interdigitale and G. albicans). A detailed bacteriological study on the subject is in progress, Dr. Linfield indicated.

"Institutional Use of Antibacterial Fabric Softeners", by Dr. Linfield, J. C. Sherrill, R. E. Casely, D. R. Noel, G. A. Davis, of Armour turned the spotlight on a related subject. Cationic softeners are good carriers for a mercurial antibacterial agent. Linens treated with these compounds in the laundry inhibited the growth of many gram positive organisms including some of the resistant strains of Staphylcoccus aureus, the authors report. They state further, that the treatment was equally effective against certain gram negative organisms especially the Proteus type of organism which is an ammonia producer, posing a problem in nurseries. Lastly, such treatment is claimed to be effective in inhibiting

fungi such as mildew. The use of an antibacterial fabric softener in institutional laundries is said to produce a substantial reduction of the overall bacterial load of soiled linens.

Current interest in methyl taurate detergents as ingredients of soap/syndet toilet bars makes the availability of a salt free material desirable. A novel method to make this material is described by L. W. Burnette and M. E. Chiddix, General Aniline & Film Corp., New York, in a paper entitled "Reaction of Fatty Acids with N-Methyltaurine." Hitherto, the usual method has been to react n-methyl tauride and a fatty chloride. This reaction forms sodium chloride at a rate of up to 1.3 mole of salt for every mole of product. Although there is a feasible way to remove the salt, the most economical approach is the direct reaction of fatty acids with methyltaurine, the authors pointed out.

The answer to this problem lies in the use of excess acid, which minimizes side reactions and allows vield of over 90 per cent based on methyltaurine. The residual fatty acid remaining in the final product is termed by the authors a natural and useful component in such mixed toilet bars. Excess acid runs from 32 per cent at a 1/1 ratio of fatty acid/methyl taurine to 51 per cent at a 2/1 ratio of fatty acid to methyl taurine. The ketones formed in side reactions may not be undesirable in bars, but at temperatures between 220 to 240° C. they appear to be at a minimum and to run between two to six per cent

"Amides of Alpha-Sulfonated Fatty Acids", by J. K. Weil, A. J. Stirton, and R. G. Bistline of Eastern Regional Research Laboratory, Agricultural Research Service, USDA, Philadelphia, was presented by Dr. Weil. He described methods whereby substituted amides may be prepared from acid chlorides through reaction with ammonia or an amide. Dr. Weil indicated various ways to form the



Speakers and moderator for soap and synthetic detergents session during AOCS fall meeting in Los Angeles. Left to right: L. E. Weeks, Monsanto Chemical Co.; J. K. Weil, Eastern Regional Research Laboratory; John Morrisroe, Pilot California Co., moderator; R. L. Liss, Monsanto; Frederick Villaume, American Cyanamid Co., and L. W. Burnette, General Aniline & Film Corp.

acid chlorides. A preferred method for good yield and ease of purification is the reaction of thionyl chloride with alpha-sulfopalmitic or alpha-sulfostearic acid. Reaction of the acid chloride with ammonia or an amide forms a carboxylic acid amide with a free sulfo group available for neutralization and solubilization.

Amides were made from such amines as ethanolamine, diethanolamine, propanolamine, ethylamine, N-methyltaurine, and ammonia. Solubility in aqueous and nonaqueous solvents generally increased with increased number of hydroxyalkyl groups. Sodium salts of alkanolamides of alphasulfopalmitic and alphasulfostearic acids have good stability toward divalent ions and good lime soap dispersing power, Dr. Weil said.

Commercial development of chloroisocyanuric acid compounds has given birth to a new family of bleaching agents and sanitizing compounds, according to R. L. Liss and T. B. Hilton, Monsanto Chemical Co., St. Louis, Mo. Title of their paper was "The Chloroisocyanuric Acid Compounds as Bleaching and Sanitizing Agents". Household and commercial laundry dry bleaches, machine dishwashing compounds, scouring cleansers, sanitizing compounds, and tabletted specialty items, are among the products incorporating chloroisocyanuric acid compounds.

Physical and chemical properties of these materials (Table 1) were described and related to their applications.

Solid nature, solubility characteristics, compatibility, complete

Table I.

	Available Chlorine	Melting Point	Solubility in 100 gr H _. O @ 25°C.
Trichloroisocyanuric acid	88-91	220-230	9.5
Dichloroisocyanuric acid	70-71	218-222	0.8
Sodium dichloroisocyanuric acid	60-63	Decomposes above 250°C.	24.3
Potassium dichleroisocyanuric acid	59-60	Decomposes above	9.0

chlorine availability, and sanitizing properties, are a few of the factors determining individual selection the authors point out. Inherent differences among the acids and their salts provide a wide range of properties. The great advantage of the potassium salt over the sodium salt is ion compatibility in formulations and greater stability. The authors presented data showing this stability by using as an example a typical scouring cleanser containing five per cent trisodium phosphate, 2.6 per cent dodecyl benzene sodium sulfate, and 0.5 per cent of available chlorine as chloroisocyanuric acid derivative. The order of stability was the same as that shown in Table I with the potassium salt far superior to the best sodium salt. The same results were obtained in tests with other cleansers.

Lloyd E. Weeks, John T. Lewis, and Thomas C. Tesdahl, Monsanto Chemical Co., St. Louis, Mo., presented a study entitled "Analysis of Surfactant Mixtures." An analytical procedure was developed to quantitatively isolate and identify the various components of surfactant mixtures following their removal from detergent compositions. Surfactant mixtures analyzed were those from both built and unbuilt liquid and solid detergent compositions. The method reported consists of first isolating unsulfonatable matter (neutral oil), then separating nonionics from anionics by means of an ion ex-

change treatment. Soap fatty acids were extracted from an acid solution while hydrotropes were removed in the acid form subsequent to a solvent extraction and cation exchange treatment. Alcohol sullates were hydrolyzed for further analysis of their hydrophobic component. Isolated purified alkylbenzene sulfonates were characterized by cationic titration and infrared absorption. The cationic CTAB (cetyltrimethylammonium bromide) was used as titration material. Other surfactants were identified by qualitative chemical analysis and absorption spectroscopy.

Some of the problems encountered by "Optical Bleaches on Wash and Wear Cottons" were discussed by F. G. Villaume of American Cyanamid Co. Bound Brook, N. J. The optical bleaches currently being incorporated in soaps and detergents show a considerable reduction in whitening effect and fastness on wash and wear cotton as compared to untreated cotton. This is caused by the reduced affinity for the dve exhibited by the resin-treated wash and wear cloth the author explained. The problem facing the optical dve manufacturer is the formulation of a product which is equally suitable for treated and untreated fabrics, when incorporated in a textile detergent. A few examples of promising compounds were presented.

"Removal of Fatty Soil from Glass-Electrolyte Detergent Build-

er Effect," was the title of a paper by R. M. Anderson, J. Satanek, and J. C. Harris of Monsanto. The mechanism of radiotagged tristearin removal from a glass substrate by sodium tripolyphosphate (STP) is primarily one of preferential displacement, the author stated. Tristearin removal by STP appears to be a competition for primary polar adsorption sites: STP being the more polar, it displaces the soil. Continuous soil films are more slowly removed than spotty soil films because initially fewer accessible adsorption sites are available for displacement attack by STP. It is believed that emulsification of these heavy films occurs initially by the "stripping" or preferential displacement by STP of the adsorbed monolayer at a site, followed by a rolling up of coherent soil along with the desorbed monolayer. resulting in some emulsification.

In addition to its sequestrant water softening action previously considered its main function, and its detersive effectiveness, another very important feature has been discovered, the authors report. Tripolyphosphate (and sequestrant type anion) adsorbs on a glass surface and reduces the tenacity of subsequent fatty resoiling. This may account to a considerable degree for the demonstrated high practical cleansing effectiveness.

Adsorption of STP is not by a base exchange mechanism, for quartz also displays the same effect as glass. It seems apparent that the same type of adsorption sites exist on both glass and quartz surfaces, though those on quartz suggest either a stronger adsorption of a higher energy level or a larger number of adsorption sites.

These data demonstrate the relatively high detersive efficiency of the polyphosphates for this soil/substrate system, sodium metasilicate and sodium carbonate falling considerably lower in soil removal value.

"Sulfates of Ethoxylated Tridecyl Alcohol in Dishwashing" were discussed by Wayne C. Schar

More AOCS speakers, left to right: Lester O. Leenerts. Purex Corp., J. C. Harris. Monsanto Chemical Co., Warner M. Linfield, Armour & Co., and W. C. Powe, Whirlpool Corp.



of Enjay Laboratories in Linden, N. J. Sulfated ethylene oxide adducts of oxo tridecyl alcohol and sulfated ethoxylates of lauryl alcohol and nonylphenol were compared for wetting and foaming power and for stability of foam in the presence of greasy soil as encountered in dishwashing. For dishwashing the ammonium salts of the ethoxylated sulfates were used in conjunction with ammonium dodecyl benzene sulfonate.

Under the conditions of the test, the sulfated tridecyl ethoxy-lates appear to give optimum foam stabilization when containing four to five moles of ethylene oxide, according to Dr. Schar, Water hardness does not change this optimum significantly, but does have a marked influence on the number of dishes washed. Generally, the sulfated tridecyl ethoxylates give better performance over a wider range of water hardness than do the other ethoxylate sulfates, the author said.

Several sulfating agents were used to evaluate their effect on the properties of the sulfated ethoxylates. The foaming ability of the tridecyl derivatives was essentially independent of the sulfating agent, while that of nonylphenol varied greatly. Dr. Schar found that sulfation with sulfamic acid gave the best results, sulfur trioxide the poorest, and chlorosulfonic acid was intermediate for a given nonylphenol adduct.

Measurements of CMC

Measurements of critical micelle concentration (cmc) as a function of temperature (25, 50, 75°C) was the subject of a paper presented by M. E. Ginn, F. B. Kinney, and Jay C. Harris of Monsanto. Their contribution was entitled "Effect of Temperature on Critical Micelle Concentration." Measurements were made by the dye solubilization technique for homologous series of sodium alkylbenzene sulfonates and alcoholadducts. The alkylbenzene sulfonate series shows increase in cmc

for increase in temperature. The critical concentrations for the nonionic surfactants show increases with increase in ethylene oxide. (EO) content for a given hydrophobe; cmc is 12 to 21 times more sensitive to unit change in carbon content of hydrophobe than to unit change in EO length; a ratio of 1:3:40 describes the magnitude of changes in cmc for "unit" change in temperature, EO chain length and carbon chain length of hydrophobe. The effect of temperature on the cmc of these nonionics is virtually the exact opposite of the effect on anionics: cmc decreases with increasing temperature.

Clothes Soil Makeup

Palmitic acid was found to account for about 33 per cent of the total fatty acid content found in hard to remove organic soil accumulated on cotton garments in studies reported by W. C. Powe and W. C. Marple of Whirlpool Corp., St. Joseph, Mich. Their contribution entitled "The Fatty Acid Composition of Clothes Soil" described a procedure whereby organic soil was extracted from clothes and analyzed for free and combined fatty acids. This organic material had not been removed by normal laundering procedures.

Analysis revealed that the soil was very uniform and consisted of clay having a particle diameter of 0.1 micron or less plus organic matter. The organic constituent was composed of 60 per cent saponifiable material comprising 30 per cent esters and 30 per cent soaps. The balance of the organic matter was unsaponifiable, about 15 per cent cholesterol and fatty alcohols, and 15 per cent hydrocarbons. The lime soap content was high and the free fatty acids content low.

No highly unsaturated acids were present and palmitic accounted for 33 per cent of the total acids, the balance being C₁₅ and C₁₈ straight chain acids. No linoleic or linolenic acid was detected.

The findings described in

this contribution should be useful to anyone charged with preparing artificial soils for testing purposes.

Gas Chromatography

Apart from the program directly pertaining to soaps and syndets there was a session on gas chromatography which included papers of potential interest to the analyst in these industries. V. R. Huebner of Armour and Co., for instance, spoke on "Gas Chromatography as a Means of Quantitatively Estimating Mono-, Di-, and Triglycerides Derived from Coconut Oil."

Concurrently with the meeting there was a display of technical exhibits by 30 firms, including manufacturers of equipment, basic chemicals and surfactants. The west coast detergent industry was represented by three exhibitors, all of them makers of industrial syndets: Pilot California Co., Los Angeles; Process Chemical Co., Santa Fe Springs, Calif.; and Textilana Corp., Hawthorne, Calif. A fully enclosed filter was shown by Sparkler Manufacturing Co., Mundelein, Ill. This featured a built-in screw conveyor for removal of the cake, so that the press need be opened only at very infrequent intervals.

A choice of three plant trips had been arranged: Beckman Instruments, Inc. at Fullerton: Lever Brothers Co.'s Los Angeles plant: and Peterson Manufacturing Co.'s automated tallow rendering plant. The author elected to visit Lever's 25 million dollar facilities about 15 miles outside Los Angeles, Soaps, household and bulk detergents, shortening and margarine, are made and packaged here for distribution in the western United States. All powdered household washing and cleaning compounds manufactured at this plant are synthetic. No soap based retail products of this type are produced here.

Facilities include a line making "Dove" synthetic toilet bars. The amalgamated chips go to a

(Turn to Page 193)

Sanitation Needs Selling

N EARLY 1,100 people attended the 4th annual Industrial and Building Sanitation Maintenance Conference and Show held in New York Sept. 22-24 and sponsored by the Institute of Sanitation Management. Conference sessions were held at the Hotel New Yorker and ran concurrently with the trade show of sanitation and maintenance chemical specialties which were displayed at the New York Trade Show Building.

At the opening conference session held Tuesday morning. Sept. 22, Edward P. Field, Jr., Colgate-Palmolive Co., New York, delivered the keynote address. There also was an address by Edward A. Dubois, Polaroid Corp., Cambridge, Mass., titled "The Meaning of Sanitation." ISM held its annual business meeting with reports by the president, E. S. Doyle, National Canners Association, Berkeley, Calif., and the executive secretary, Gerald J. Riley. New officers also were introduced including Albert J. Burner, Port of New York Authority, president: Raymond Q. Duke, Detroit Edison Co., president-elect; and Edward Hupert, U. S. Post Office Department, vicepresident. Elections were held by mail ballot during July and Aug-

Approximately 65 companies exhibited at the three day show and among these were: Davies-Young Soap Co., Dayton, O.; U. S. Borax and Chemical Co., Los Angeles; R. M. Hollingshead, Inc., Camden, N. J.; Horizon Industries, Milwaukee, Wis.; Huntington Laboratories, Inc., Huntington, Ind.; Masury-Young Co., Boston: G. H. Packwood Co., St. Louis; Airkem, Inc., New York; Dolan Wax Co., New York; C. B. Dolge Co., West-

port, Conn.; Reliable Chemical Co., Passaic, N. J.; and West Chemical Products, Inc., Long Island City, N. Y.

Field on Sanitation

In his keynote address, Mr. Field, who is general manager, associated products division of Colgate-Palmolive Co., called upon members of the Institute of Sanitation Management to become more articulate in selling their services. In view of the fact that they are selling "environment" their task is not easy, Mr. Field declared.

Looking at the background of sanitation management as a profession Mr. Field said that in primitive societies it was the responsibility of the individual. With the advent of the industrial revolution it became the responsibility of management.

In the early days of industrial growth the job of sanitation consisted mainly of sweeping up to keep the plant free from debris. Describing a turn-of-the-century sweat shop, Mr. Field conjured up a picture of an overcrowded, filthy

Edward P. Field, Jr.

ISM Keynote Speaker



factory filled with hazards of all kinds. It was this picture, he asserted, brought graphically to the public's mind, which shocked the U. S. into passing child labor laws. And this piece of legislation, accompanied by a general public awareness of the need for clean and pleasant working conditions, really marked the birth of sanitation as a profession.

From these humble beginnings, both public awareness and recognition of sanitation's import have made tremendous strides. "No intelligent person today would work in a plant or a building or a hospital where sanitary conditions were not of the highest," Mr. Field asserted. "No tax ridden parent has ever been known to object to the item on the school board's budget which covers the cost of keeping the school clean.

"Industry recognizes that the physical condition of the plant, the office, the company cafeteria, and the rest-rooms play an important part in the company's well being—for it is tied in with employees' absence due to illness, with increased output, with less employee turnovers and . . . with the quality and consumer's image of the finished products."

With growing staffs and increasingly diversified functions, the professional sanitation group has become part of today's business management, Mr. Field pointed out. Thousands of new products are developed for specific sanitation uses and entire business organizations have been created solely to satisfy the need of the sanitation industries. This rapid change and progress in products and techniques compels the man in the field to devote more and more of his time in informing himself and keeping abreast of current advances.

"Strictly as an example," Mr. Field continued, "we at Colgate-Palmolive Company have set up an entire department to serve your needs. The products of the Associated Products Division have been created to supply you with a part of the tools you use.

"We have set up a long term program of research and development aimed at finding new products which will aid in both cleanliness maintenance and sanitation management."

The speaker referred to the close cooperation between ISM and the Association of American Soap and Glycerine Producers. Members of the latter group are producers at the service of sanitation management and cleanliness maintenance.

Mr. Field expressed the belief that 1960 will see a great refinement of techniques in sanitation. He also said that the year must bring improvement in the one failing he sees in the profession. This failing according to Mr. Field is lack of adequate communication. "You have, until now, been a little like the good man who quietly and anonymously performs great works of charity to help his fellow humans," he asserted.

"In doing this he derives great inner satisfaction . . . But if he were some day to wonder why no one honored him for his anonymous deeds, he would be much like the members of the Institute of Sanitation Management."

Mr. Field told the meeting that the profession cannot afford to be modest and secretive about its accomplishment, and its "work which contributes so much to the American Way of Life."

He told ISM members that while they must be primarily technicians, they must also be salesmen. He termed salesmanship a necessary adjunct which enables the technicians to perform their tasks.



Albert J. Burner

Selling an intangible is a much more difficult task than selling a tangible product. As a proof that it can be done successfully, Mr. Field cited the universities which succeeded in convincing the American people that a higher education counts.

"Above all, let me suggest that you should be selling sanitation maintenance every time you talk, whether it be to top management, to labor or to the general public.

"In selling it is well known that very few sales are made on the first call—in fact, statistics show that 70 per cent of sales are made on the tenth call and only 30 per cent on the first nine. Therefore don't get discouraged if it seems like tough sledding."

Mr. Field then told ISM members that "1960 should be the year in which you add to your tool kit the important tool of communications."

"You have many wonderful stories to tell—then tell them!" he said. "You have a great store of accomplishments which you can relay to the public—then do so!"

He then accused sanitarians of having neglected the media of communication at their disposal: "The newspapers and magazines have not neglected you—you have neglected them," he asserted.

Mr. Field then called upon members to exert their efforts in making the public and members of industrial management more conscious of the need for more and better sanitation management. He stressed that such efforts must be continuous to be effective.

"As a member of the general public," he said, "I ask you to make me more conscious than ever before of the need for constantly improving sanitation management and of the great role you have played and are playing.

"As a typical member of management in industry, I ask you to make me more conscious of the need to give sanitation management its proper and well-deserved status within the organizational structure and to provide it further with the tools with which it can implement reforms and refinements in sanitation control."

Mr. Field then returned to the keynote of his address: "You must communicate. If necessary, you must get the talent to help you to do it," he pointed out.

"Of one thing you can rest assured," he stated: "My company and others in industry are behind you, ready to help."

"I know you regard this year's meeting as an unusually important one. I am certain that it will prove to be a key one in your future growth and advancement." he concluded.

Mr. Field's main points were salesmanship and education of the public and management to give sanitation and cleanliness maintenance their correct place among important services performed by specialized professionals. Having made these points he singled out personal contact and printed media as the channels through which they can be accomplished. In other words: ISM members must become public relations conscious, both as individuals and as a professional group.

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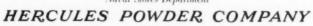
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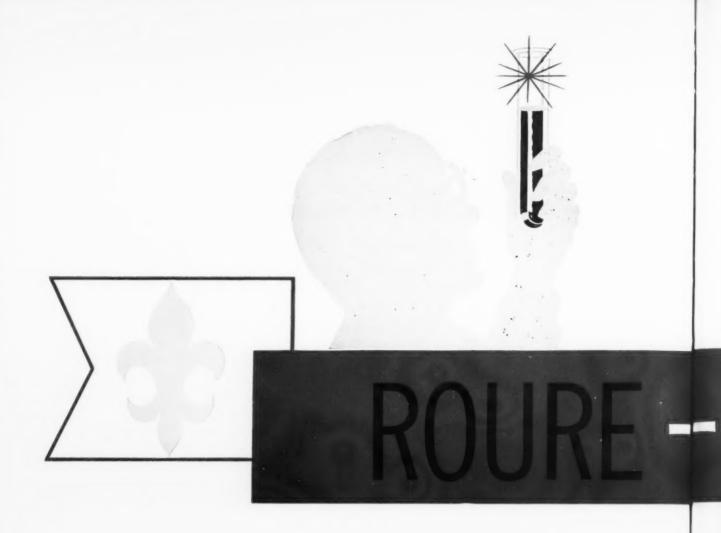
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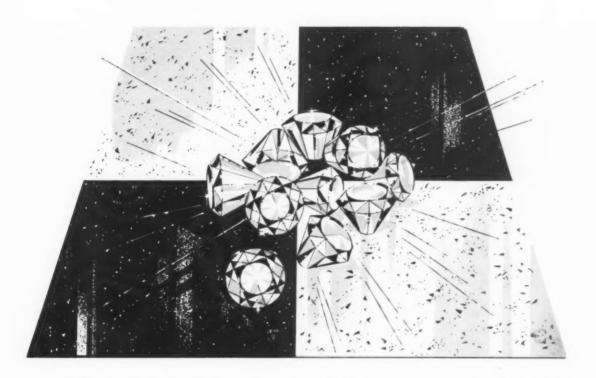
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CSMA Aerosol Clinics . . .

Total attendance of 556 for all-day session held in N. Y. and Chicago, Oct. 17 and 24

WO aerosol clinics, held on consecutive Saturdays last month in New York and Chicago, were attended by 556 persons. The first clinic, held at the Sheraton-Atlantic Hotel, New York, Oct. 17, drew 325 persons. The Chicago version of the clinic, on Oct. 24, at the LaSalle Hotel attracted 231. Both clinics were organized and operated under the sponsorship of the Aerosol Division of the Chemical Specialties Manufacturers Assn.

The purpose of the clinics was to "provide basic and up-to-date technical information on pressure filling operations to industry members, especially junior level management, operators and technicians." To accomplish this end the nine a.m. to five-fifteen p.m. New York clinic featured seven individual presentations. These covered aerosol components: valves, containers, propellants: aerosol principles; marketing data, laboratory operations and customer complaints. In addition, two panels of



Men responsible for success of clinics: H. W. Hamilton, CSMA executive vicepresident and general manager: Joseph J. Tomlinson, General Chemical Division. Allied Chemical Corp. and A. H. Lawrence, Jr., Freon Products Division, E. I. du Pont de Nemours & Co., committee members.

acrosol fillers answered questions pertaining to formulation problems and commercial filling.

History, Markets

An introduction and welcome by E. J. McKernan, president of E. J. McKernan Co., Elgin, Ill., and chairman of the Aerosol Division of CSMA, opened the clinics.

First speaker, on "Aerosol Industry History and Markets," was R. A. Crane of Freon Products Division, E. I. du Pont de Nemours & Co., Wilmington, Del. He traced

Part of the 325 who registered for the New York Clinic at the Sheraton-Atlantic Hotel.





Platform appearances at the New York clinic, Oct. 17, were made by, left to right, John Beacher, Avon; Walter Beard, Risdon; Joe Tomlinson, General Chemical Division; Ed McKernan, E. J. McKernan Co.; Dave Tillotson, Pennsalt. Bottom

row: Gus Lawrence. du Pont; John Buchanan, Continental Can; Rov Ferry, Kartridg-Pak; Ralph Crane, du Pont, and Frank Mina of Lodes Aerosol Consultants, Inc.

the development of the aerosol market from 1946 through 1951 and then its expansion from 1952 through 1958.

By the end of the first period there were 58 companies loading aerosol products, Mr. Crane noted. and these products were becoming more diverse as houshold products. besides the first insecticides, were added. From 1952 to 1958, the principal aerosol products were still insecticides and shave lather. Production of the latter increased from 10 million units in 1952 to 60 million in 1958. Aerosol insecticide production also experienced a steady increase, although a drop in production in 1957 was attributed to a decrease in the insect population. Other aerosol products in the non-food category rose

steadily with no decline, from 20 million units in 1952 to 92 million in 1958.

In reviewing the total dollar market for insecticides and



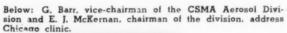
Visitors from afar: Yoshio Yamati, left. and T. Yamamoto, right, of Nippon Oils & Fats Co., Tokyo, with E. J. McKernan at New York clinic.

shave lather, Mr. Crane pointed out that both have increased while non-aerosol packaged products steadily declined. The future aerosol market is far from saturated, Mr. Crane stated, and there is a substantial market still to be developed. He based this conclusion on a consumer survey conducted last year and noted several other surveys and dealer studies made since 1952.

Mr. Grane stated that the future market for aerosol packaging of food and pharmaceuticals was large but that there are "still many formidable problems with regard to sanitation and stability. Progress in pharmaceuticals thus far has largely been confined to inhalants and topical sprays, he said.

He predicted that sales of pressure packages would reach one billion dollars annually by 1965.

New York clinic panelists, top, l. to r.: Fred Presant, Milton Fowks and Philip M. Prussak; Bottom row: John Hart, Anthony Iannacone and Albert C. Osman









and that by 1970 this figure would be doubled.

"Aerosols enjoy success because the consumer has been satisfied with them," Mr. Crane declared. He added that "aerosols are the packages of the future." They "can be used for any product which can be poured or sprayed." he concluded.

Aerosol Principles

An aerosol is any product dispensed by self-contained pressure. This simple definition was given by F. A. Mina of Lodes Aerosol Consultants, New York, who spoke on "Aerosol Principles." The main ingredients of any aerosol, Dr. Mina noted, are the container, valve, propellant, and product base. He reviewed



SRO SIGN was up for the Chicago aerosol clinic at the LaSalle Hotel, October 24.

to each and the mode of action of each type.

W. C. Beard, Jr., of Risdon Manufacturing Co., Naugatuck,

explaining what they do, their components, and different types. Demonstrating how the valve affects the performance of the package, Mr. Beard changed the valve on one container filled with the same product and propellant and produced a variety of spray patterns. He also noted that by varying the sizes of the orifices in the valve and actuator, the particle size of the dispensed product is also changed. In a detailed description, Mr. Beard showed with slides the various components of an aerosol valve, their materials of construction, and methods of crimping both metal and glass containers. He went on to discuss spray, foam, and metered valves, and the mechanical break-up valve actua-

Conn., spoke on "Aerosol Valves,"



New York clinic speakers L. T. Flanner, of General Chemical, and Daniel C. Geary of Union Carbide, right, explain slides.

each of these components, pointing out the types of materials used for acrosol containers such as metal, plastic, and glass; the types of valves available; the different propellants such as fluorocarbons, hydrocarbons, and compressed gasses; and the important considerations that must be given to the product base. Dr. Mina described five acrosol systems: two-phase, with product and propellant as a homogeneous mixture; threephase, with product base, propellant, and propellant vapor; foam type; powder type; and solid stream, with a nitrogen propellant. He went on to give examples of each of these systems showing the application of the product base

Chicago Panelists: Robert Swen, Kartridg-Pak Machine Co.; Roland L. Rhodes, Cook Chemical Co.; C. F. Kessler, Plasti Kote, Inc.; William H. Walker, Fuller Products; Robert G. Appenzeller, G. Barr & Co.; George Barr, G. Barr & Co.; David S. Tillotson. Pennsalt Chemicals: Montford A. Johnsen, Peterson Filling & Packaging Co.; and S. Jack Campbell of Continental Filling Corp.



Aerosol propellants were described by L. T. Flanner of General Chemical Division of Allied Chemical Corp., New York, as "the material that puts the push against the concentrate in an aerosol can." Another role propellants play, he said, is "to blast or finely divide the concentrate into small particles. This blasting or division is accomplished by the expansion of a liquid to a gas." One propellant, "12," expands "240 times its liquid volume," according to Mr. Flanner.

Mr. Flanner then went on to discuss the more commonly-used propellants, such as the fluorinated hydrocarbons, and explained their system of numbering.

Other types of propellants including nitrogen, nitrous oxide, carbon dioxide and combinations of these are most widely used for food aerosols, Mr. Flanner pointed out. He also discussed briefly other propellants such as the straight hydrocarbons: propane, butane, isobutane and pentane.

"These compounds or combinations of them will produce an acceptable propellant for aerosols. However, due to their flammability, they cannot be used in formulations requiring large percentages of propellants, nor can they be used in formulations maintaining large concentrations of solvents," Mr. Flanner explained. Where price is a controlling factor they are used, he said.

Mr. Flanner concluded his talk with a discussion of means and equipment for handling propellant containers.

The concluding speaker of

the morning session, John J. Buchanan of Continental Can Co., summed up the requirements of an aerosol container as follows: "It must hold the product without being affected by it, and be strong enough to hold the product, and be attractive." The balance of Mr. Buchanan's talk was devoted to types of aerosol containers, coatings or linings, and various aspects of can making. Slides illustrating can manufacture were shown and explained by the speaker.

Aerosol Laboratory

The requirements of the aerosol research laboratory are not unique and "many well equipped chemical laboratories are suitable for aerosol work", Daniel C. Geary of the technical service laboratory of Union Carbide Chemicals Co., New York, reported.

"The only requirement which is a little unusual", Mr. Geary said, "is the 80 to 90 psi air necessary for the operation of packaging and testing equipment."

Following the showing of slides of a wide range of aerosol laboratory equipment, which he identified and described briefly, Mr. Geary outlined the requirements of an aerosol laboratory. The initial cost of equipping and operating such a laboratory, Mr. Geary put at \$3,000 to \$12,000 for equipment and "no less than" \$12,000 to \$15,000 per man per year. The research budget, he said, was "a function of the effort required."

There is nothing unique in the inventory, storing and handling of aerosol packaging components in the laboratory, Mr. Geary said. He added that the facilities offered by any research establishment storeroom can provide this function.

The safety measures in an aerosol laboratory are the same as in other laboratory operations. They concern the handling of flammable materials or materials under pressure in breakable containers.

The analytical equipment required for the aerosol laboratory is not unique either, Mr. Geary stated. "One relatively new analytical tool which we find invaluable is a gas chromatograph", he said.

Another point made by Mr. Geary was that it is doubtful if any "ideal" organization pattern exists for an aerosol laboratory. The organization must, in large measure, depend on the talents of its available personnel. Both technicians and highly trained scientists are required. The ratio of one to the other depends on the nature of the research program undertaken.

In equipping a library, the aerosol laboratory will have to depend upon the trade publications of the past 10 or 15 years, since aerosols are so new that extensive literature on them does not exist, according to Mr. Geary. In addition he suggested the use of standard works on organic, physical and analytical chemistry, along with a few specialized texts on emulsion technology.

"We find it impossible to divorce customer service from formulation and development of new products", Mr. Geary reported.

"Handling Customer Complaints" was a one-man panel con-

(Turn to Page 103)

Manning the registration desk at the Chicago aerosol clinic, Oct. 24, l. to r.; A. A. Mulliken, assistant secretary, CSMA; Art Butler, General Chemical Division, Allied Chemical Corp.; Evon Jarvis, du Pont; Bess Therriault, du Pont; and George Dietrich. General Chemical.



Corrosion Inhibitors...

Phosphates as corrosion inhibitors for sodium hypochlorite solutions

By Alan MacKenzie* and Marshall Dick,

U. S. Army Chemical Corps, Fort Detrick, Maryland

ODIUM hypochlorite solutions have long been used for disinfecting and sanitizing a wide diversity of materials ranging from walls and floors to delicate surgical instruments. However, one of the principle disadvantages to its use is the fact that it is extremely corrosive to most metals. This problem has been circumvented in many instances by substituting a less corrosive disinfectant, such as quaternary ammonium compounds or other organic disinfectants, in applications where corrosion is of serious concern. In general, organic disinfectants have been shown to be less effective than chlorine-containing compounds against some varieties of bacteria, particularly bacterial spores.

To help clarify the limitations and capabilities of the use of sodium hypochlorite for disinfection in instances where corrosion is a problem, an attempt has been made to develop a corrosion inhibiting formulation which will reduce corrosion of most common metals by sodium hypochlorite solutions. Results of this study are presented in this discussion.

Methods and Materials

Tests to be discussed were carried out by immersing metal test pieces in sodium hypochlorite solutions maintained at 25 °C. The metal test pieces were cut from sheets to a size of 1.0 inch by 2.0 inches, and punched to permit suspension by means of a glass hook. Before weighing, the test pieces were carefully cleaned and polished by finishing with 000 emery paper. Characteristics of the metals used were as follows:

Aluminum: "Alcoa" aircraft quality 2024T3, 0.051-inch thickness,

Brass: "Anaconda" half-hard brass sheet, 0.085-inch thickness.

Copper: Commercial, 0.095inch thickness.

Galvanized steel: Commercial, 0.05-inch thickness.

Lead: Commercial, 0.125-inch thickness.

Magnesium: Federal Specification QQ - M - 54, 0.07 - inch sthickness.

Steel: Hot rolled open-hearth, ASTM A7-49T, ½-inch plate.Stainless Steel: Type 304; 0.035-inch thickness.

Tinplate: Commercial "tinplate", 0.0125-inch thickness.

Test solutions were prepared by dissolving the required amounts of phosphate in the smallest quantity of water to effect solution, adding sodium hypochlorite in the form of a seven to eight per cent available chlorine stock solution, and adding water in quantity sufficient to give the desired concentrations. Technical grades of phosphates used were anhydrous Na₂HPO₄ and Na₃PO₄, and Na₃PO₄.12H₂O. Individual test pieces were suspended in individual beakers, liquid volume in each case being approximately 350 ml.

After 24 hours' suspension, the test pieces were removed from the solution, cleaned by vigorous rubbing with a rubber stopper under running hot tap water, rinsed in alcohol, and air-dried before weighing. Any film or corrosion products not removed by this treatment were considered a protective coating and included in the final weighing. In some cases, a heavy coating of this type remained and caused an increase in weight of the test strip. This situation was responsible for the negative corrosion reported in the table.

Results and Discussion

During this investigation, other materials evaluated as corrosion inhibitors for sodium hypochlorite solutions were alkali metal sulfates, chromates, nitrites, and silicates, sodium tripolyphosphate, tetrasodium pyrophosphate, and monobasic sodium phosphate (dihydrogen). They were all found to be less effective than the phosphate reported in the tables. Results of tests with trisodium phosphate, alone and disodium phosphate, alone and in various combinations,

^{*}Present address: E. I. du Pont de Nemours & Co., Wilmington, Del.

Table I. Corrosion and appearance of various metals in two per cent aqueous available chlorine solutions using various ratios of trisodium phosphate to disodium phosphate.

Ratio, trisodium phosphate	Corrosi	on, inches penetration	per year	General ar	pearance at comple	tion of test
to disodium phosphate	steel	galvanized steel	aluminum	steel	galvanized steel	aluminum
No inhibitor	0.20	0.03	3.2	3	3	4
100:0	< 0.01	0.02	2.7	2	1	4
30:20	0.02	0.09	1.2	1	2	2*
60:40	0.02	0.01	0.6	1	2	2*
40:60	0.01	0.03	0.6	1	2	2*
20:80	< 0.01	0.03	1.0	2	2	2
0:100	0.02	0.03	1.0	4	2	2
						100

Notes:
2. Total inhibitor concentration was 10.0 per cent by weight
4 Indicates presence of white film completely covering metal surface

are listed in Tables I through IV. There is admittedly much variation in the calculated corrosion rate between individual determinations in a set, so more emphasis has been placed on physical appearance of test coupons. In order to evaluate appearance, the course of deterioration was divided into the following five classifications, which were generally somewhat different for the various metals evaluated:

- 1. No change:
- 2. Spots of corrosion on test strip;
- 3. Spots more pronounced and, in some cases, overlap to form a more or less continuous dark film:
- 4. Crystals in solution and covered completely with corrosive products:
- 5. Entire coupon encased in a dark paste and, in some cases, portions of the coupon completely eaten away.

In general, the physical clas-

sification paralleled the corrosion rate, although there were many exceptions due to the arbitrary nature of the classifications.

As indicated in Table I, no single ratio of trisodium and disodium phosphates proved to be the best inhibitor composition for all three metals considered. The most effective weight ratios of trisodium to disodium phosphate were 100:0 for steel; 60:40 for galvanizd steel; and 40:60 for aluminum. Results were most spectacular in the case of steel, where no visible change in coupon appearance occurred. While corrosion rate of aluminum was decreased by some 80 per cent with the optimum ratio, weight loss was still severe. In this case, a uniform white film completely covered coupon surface, and it is therefore believed that the true corrosion rate is somewhat less than that indicated by the tests. In all cases it was found that addition of more

than five per cent by weight of inhibitor is unwarranted.

Addition of inhibitor reduced corrosion of steel and galvanized steel at all concentrations of available chlorine tested. Corrosion of aluminum was reduced only when available chlorine was 2.0 per cent or above. Addition of inhibitor, when available chlorine concentration was below two per cent. actually accelerated corrosion of aluminum. At 2.0 per cent available chlorine, addition of 2.0 per cent by weight of trisodium phosphate and 3.0 per cent by weight of disodium phosphate retarded corrosion for all metals tested, except brass and lead; corrosion of brass and lead in uninhibited sodium hypochlorite was less than 0.01 inches per year.

No evidence was found that phosphates tested exhibited inhibition of corrosion by retarding release of chlorine, as available chlor-

Table II. Corrosion and appearance of various metals in two per cent aqueous available chlorine solutions using varying concentrations of mixed trisodium and disodium phosphate.

Inhibitor concentration and	Corrosi	on, inches penetration	per year	General appearance at completion of to				
ratio of trisodium phosphate to disodium phosphate	steel	galvanized steel	aluminum	steel	galvanized steel	aluminum		
No Inhibitor	0.20	0.03	3.2	3	3	4 *		
0.5-63:37	0.16	0.02	3.1	3	2	4		
1.063:37	0.10	0.01	2.6	3	2	4		
2.5-63:37	0.10	< 0.01	0.8	3	1*	3*		
5.0—63:37	0.04	0.04	0.5	2	1*	3*		
7.5—63:37	0.02	0.08	0.6	2	2	2*		
10. —63:37	0.10	0.10	0.5	1	1	2*		
1.0-40:60	0.11	< 0.01	1.7	3	2	3*		
2.540:60	0.15	< 0.01	0.4	3	2	3*		
5.0-40:60	0.03	< 0.01	0.4	2	2	3*		
7.5—40:60	0.06	0.02	1.1	3	2	2		
1040:60	0.03	0.04	0.7	2	2	2		

Available chlorine varied from 1.90 to 2.10 per cent.
*Indicates presence of white film completely covering metal surface.

Table III. Corrosion and appearance of various metals in varying concentrations of available chlorine, with and without added inhibitor.

Available	Corrosion, inches penetration per year General appearance at							completion of test							
chlorine	No	inhibitor ad	ded	ir	inhibitor added no inhibitor ad			added	inh	ibitor adde	d				
conc. (%)) steel galv. steel		alum.	steel	galv. steel	alum.	steel	galv. steel alum.		steel	galv. steel	l alum.			
0.3	_	-	< 0.01	_	_	0.42		_	2	_	_	2*			
0.5	0.32	0.15	0.02	< 0.01	< 0.01	0.14	2	2*	3	1	2	2*			
1	-	_	0.17		_	0.28	_	-	2*	_		2*			
2	0.20	0.03	3.2	0.03	< 0.01	0.41	3	3	4	2	2	3			
3	1.3	0.18	5.2	0.17	< 0.01	2.7	4	3.	4	2	2	3*			
5	1.4	0.10	9.3	0.56	0.01	8.6	4	2.	4	3	2*	4			
7 .	-	-	-	0.25	< 0.01	22	_	-		4	2*	5			
7.5	1.0	0.05	11.	_	-	_	4	2*	5		-	_			

Notes:

'indicates presence of white film completely covering metal surface,
Inhibitor consisted of 2.0 per cent by weight trisodium phosphate and 3.0 per cent by weight disodium phosphate.

ine measured both at beginning and on completion of tests was in agreement in all cases. Tests with Bacillus subtilis var niger (Bacillus globigii) spores substantiated the fact that sporicidal death rates in sodium hypochlorite were not adversely affected by addition of inhibitor.

It appears that the mechanism of action of phosphate is a surface phenomenon involving buildup of a surface coating on the metal test strip.

Conclusions

Corrosion of most metals in sodium hypochlorite solutions is quite severe. Alkali metal sulfates, chromates, nitrites, and silicates retard corrosion only slightly. Mixtures of di- and trisodium phosphates were best corrosion inhibitors tested, the ratio of the two depending on the metal being used.

For steel, trisodium phos-

phate was best corrosion inhibitor tested; in some cases, corrosion was reduced to 1/20 by addition of 10 per cent by weight trisodium phosphate. For aluminum, an inhibitor consisting of di- and trisodium phosphates in equal proportions proved most effective. All inhibitors tested were ineffective with aluminum at available chlorine concentrations of less than 2.0 per cent. Phosphates were found to be ineffective with brass and lead, which have relatively low corrosion rates in uninhibited sodium hypochlorite solutions.

The best procedure to follow in selecting a phosphate inhibitor is variation of the proportions of di- and trisodium phosphates for the particular system involved.★★

Acknowledgements

The technical assistance of Park E. Wilkinson is gratefully acknowledged.

Table IV. Corrosion and appearance of various metals in aqueous two per cent chlorine solutions with and without inhibitor

Metal n	D	nches penetration er year d inhibitor added	pletion	arance at com- of test inhibitor added
Aluminum	3.2	0.4	4*	3*
Brass	< 0.01	< 0.01	2*	2*
Copper	0.01	< 0.01	3	2
Galvanized S	teel 0.03	< 0.01	3	2
Lead	<-0.01	<-0.01	2	2
Magnesium	8.9	0.01	4	2
Steel	0.2	0.03	3	2
Stainless Ste	el 0.04	< 0.01	2	1
Tinplate	0.06	< 0.01	2	2

Notes:
1. Inhibitor formulations as follows:
2.0 per cent by weight trisodium phosphate
3.0 per cent by weight disodium phosphate
2. Available chlorine varied from 1,95 to 2,05 in sodium hypochlorite

* Indicates presence of white film completely covering metal surface.

Plant Maintenance Show

The 11th Plant Maintenance & Engineering Conference and Show will be held in Convention Hall, Philadelphia, in late January. The show is scheduled for Jan. 25-28 and the conference for Jan. 25-27. Held on the east coast only twice before, in 1952 and 1956, the show is expected to be the largest in its history with five acres of exhibit space for more than 400 companies. A broadly revised program is planned for the conference with additional sessions and increased emphasis on such topics as research and development techniques in maintenance, the reduction of maintenance costs, and sanitation. A general session on the opening day of the conference will be devoted to a report of a chemical manufacturing company which has been a leader in plant maintenance and engineering procedures. One of ten round table discussions which will consider maintenance problems of particular industries will be devoted to chemical plants.

Ferri Joins Dunkel

Charles M. Ferri recently joined Paul A. Dunkel & Co., Jersev. City, N.J., importers and processors of vegetable gums, as sales and technical director. He is in charge of quality control, new product development, and technical service. Previously Mr. Ferri was technical director for Thurston and Bradich division of Morningstar-Paisley, Inc., New York.

New Specialties at Hardware Show

EW chemical specialties were very much in evidence at the National Hardware Show, held Sept. 28-Oct. 2, in New York's Coliseum. Over 300 exhibits were viewed by an estimated 45,000 visitors to the show, which filled all four floors of the New York exhibition hall.

New aerosol products were in the forefront of chemical specialties introduced during the show. Among these was the new "Jet-Pak" aerosol unit of Sprayon Products Co., Cleveland. (A photograph of the unit appeared on page 69 of the August issue of Soap & Chemical Specialties.) The new "Jet-Pak" makes it possible to pressure-spray conventionally packaged products. The pressure is supplied by a container of propellant which fits into the unit that also holds a jar of liquid product to be sprayed. The pressurized can and glass container are connected by a plastic head as-

Lynwood Laboratories, Norwood, Mass., exhibited its full line of aerosols including insecticides, animal and insect repellents, and a flea control product. Among the latest developments of Lynwood are new "Fabul-X" metal cleaner and a wall cleaner. Both products were shown for the first time at the show.

In addition to its line of bird control chemicals, National Bird Control Laboratories, Skokie, Ill., introduced "Crawlz No More". This new pressure packaged tree banding compound acts as a barrier for all types of crawling insects and rodents that attack trees. Claimed to be nontoxic, "Crawlz No More" is packaged in 14 ounce aerosol cans. The product is colorless and odorless and, according to the manufacturer, remains tacky for a long

Wide range of new chemical specialties including aerosols, featured in many of 300 booths at National Hardware Show

time. National also introduced a new aerosol product to its line of bird control chemicals. Also displayed was "Roost No More", a pressure packaged bird repellent.

H. Forsberg Company, Cleveland, introduced a new lubricant in aerosol form. "E-Z Glide" is said to be a non-staining lubricant, preserver and waterproofer all in one. The product is packaged in 6 oz. and 16 oz. size pressure cans.

Kerr Chemicals, Inc., Des Plaines, Ill., displayed a full line of aerosol products which included their new quick drying hobby sprays "Tru-Green" leaves and grass, "Beach Sand" and "Tru-Soil" for adding realism to model layouts. These products are packaged in 6 oz. containers. Kerr also exhibited their aerosol fire extinguishers and a line of aerosol paints, wood finishes, degreasers, and liquid insulation.

Nip-Co Mfg., Inc., New Rochelle, N. Y. demonstrated its new "Garbo" repellent and deodorizing spray for garbage cans. The product is packaged in a 16 oz. can. The company also exhibited "Gas'M" rodenticide for controlling moles and gophers, "Rust-Nip" and "Stop-Rust" rust and corrosion preventives, as well as other rodenticides.

Lenk Mfg. Co., Franklin, Ky., introduced a new aerosol charcoal lighter. The product is pressure packaged in a 16 oz. container.

Larami Associates, Inc., (Turn to Page 87)

New "Antrol" tree wound dressing was introduced by Boyle-Midway Co.





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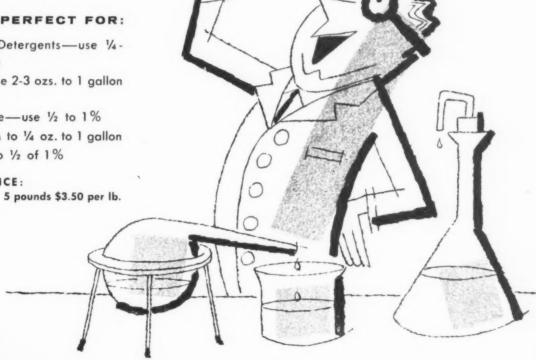
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441 LEXINGTON AVENUE, NEW YORK 17, N. Y.

(From Page 82)

York, Pa., displayed a full line of aerosol products which included a window cleaner, charcoal lighter, flea spray for dogs, dog shampoo, dust mop spray, insect killer, moth proofer and aerosol shave lather. The line is packaged in containers ranging in size from 6 oz. for the air freshener to 16 oz. for the window cleaner and charcoal lighter.

Boyle-Midway Co., New York, introduced "Antrol", a new aerosol tree wound dressing. The product provides pruned or damaged trees with a protective seal against disease and rot.

Other chemical specialties firms exhibited their established aerosol lines. Red Devil Chemical Co., Mt. Vernon, N. Y. displayed aerosol enamels. Seymour of Sycamore, Sycamore, Ill., exhibited its line of paints and stains. Knapp-Monarch Co., St. Louis, displayed its line of K-M aerosol products. Cling Surface Co., Buffalo, N. Y., showed its aerosol non-skid rug backing product. Bover Chemical Co., Evanston, III., displayed its full line of aerosol packages, as well as a line of chemical specialties. Sheffield



New "Swish-Kleen" all-purpose detergent and "Swim-Kleen" swimming pool sanitizer of Lewis Research Laboratories, Inc., Englewood, N. J. come in conventional plastic bottles shown above. "Swish-Kleen is also packed in gallon cardboard container with plastic pour spout.

Bronze Paint Corp., Cleveland, O. featured its line of "Quik-Spray" aerosol paints.

Among the non - acrosol chemical specialties, Lewis Research Laboratories, Inc., Englewood, N. J., introduced two new



products, "Swish - Kleen" and "Swim-Kleen". Both are packaged in plastic bottles and cardboard containers. The plastic units hold 16 and 32 ounces of product. The one gallon cardboard container is fitted with a plastic pour spout. "Swish-Kleen" is a new non-ionic quaternary detergent and can be used as a disinfectant - cleaner. "Swim-Kleen" is an algaecide for swimming pools.

Fast Chemical Products Corp., Yonkers, N. Y., announced new cleaner for coffee makers and plasticware. Available in a 9 oz. plastic bottle, the product is a liquid. Fast also makes cleaners for steam irons, stain removers and rust stain removers.

International Flameproofing Corp., San Antonio, Texas., introduced a new flameproofing material. Available in pint, quart (Turn to Page 107)

New "SSS-T" cleaner for coffeemakers and plasticware of Fast Chemical Products Corp., Yonkers, N. Y., was shown with steam iron cleaner and rust and stain remover of same trade name.







New Roles for Salesmen...

Greater emphasis on customer service to mark future selling F. L. Byrom tells eighth annual sales clinic of Chemical Salesmen's Association.

HE importance of the salesman as a key figure in a company's objective of making a profit, the necessity of proper backing for him from the home office, and his function in servicing as well as selling the customer, were some of the major themes discussed at the 8th chemical sales clinic sponsored by the Salesman's Association of the American Chemical Industry, Inc. (SAACI) The all-day clinic was held at the Roosevelt Hotel in New York on Sept. 28.

Dudley P. Jones of Shell Chemical Corp., New York and chairman of the Clinic Committee, presided at both the morning and afternoon sessions of the clinic.

One of the featured speakers at the morning session was J. E. Magoffin of Eastman Chemical Products, Inc., Kingsport, Tenn. He discussed "Management to Field Feedback-a Necessity to Successful Selling." In his talk Mr. Magoffin covered the importance of communications between the home office and field salesmen and support of the field salesmen by the home office staff. Since the customer's "satisfaction with the company and its services is influenced a great deal by the individual salesman," he noted, the salesman must be trained and supported by the home office. "It is the responsibility of the home office to see to it that each field salesman knows all that he should know about the company, its policies and plans so that these can be adequately explained to the customers," Mr. Magoffin stated.

In the meantime the sales-

man must do work on his own in supplying the home office with information about what products his customers need and use, and how much of these they purchase in a given period. The home office assembles this information on a broad basis and can feed it back to salesmen in particular territories.

Home Office Aids

Thus, a function of the home office is to provide each salesman with the information on which he can build an efficient sales program. It is also a responsibility of the home office "to see to it that the salesman is kept up to date on the quality of his products, particularly in comparison with those of competitors," Mr. Magoffin said.

Other areas in which the home office can aid the salesman are through technical literature to use in his sales program, support of the sales service laboratory, information about the status of orders that have been placed, and keeping the salesman informed of which customers are not performing according to expectation for a given product. Mr. Magoffin also stressed the importance of centralized data processing at the home office so that salesman and field sales offices are relieved of much routine activity. Another aid he mentioned for salesmen are regular visits to customers by technical men from the customer service laboratory.

Two other speakers at the morning session were Jesse S. Nirenberg, director of psychological services for TradeWays, Inc., New York, on "How to 'Get Through' to Your Customers and Your Boss," and Coleman L. Finkel of Executive Communications, Inc., New York, on "The Importance of Good Report Writing."

Luncheon speaker at the clinic was Arno H. Johnson, vice-president and senior economist for J. Walter Thompson Co., New York. He discussed: "Setting Our Sights for the 60's." In his talk Mr. Johnson presented a detailed report on the many aspects of the economy which will determine the nation's growth in the next decade.

Developing Managers

F. W. Steckmest of Shell Oil Co., New York, first speaker of the afternoon session reported on "What Companies are Doing to Develop Managers." His talk was followed by a panel discussion on "The Changing Role of the Salesman – Yesterday – Today – and Tomorrow" for which Ralph A. Clark, of J. T. Baker Chemical Co., Phillipsburg, N. J., was moderator.

One of the panel speakers was V. W. Suellau of General Chemical Division, Allied Chemical Corp., New York. He noted that "today's chemical salesman must learn to think in terms of the businessman," while "today's buyer expects more than delivery of product according to his specifications and shipping schedules." Mr. Suellau went on to say that "buyers look to their suppliers for new or better ideas in packaging; storage and handling; more economical methods of buying; less costly substitute products; more effici-

ent use of product; and, perhaps, even suggestions for merchandising of their own products." Thus the salesman must know about his customer's business as well as his own. He must be ready to use the many services in his own company that are "vital adjuncts to serving a customer's needs," Mr. Suellau observed. There is what Mr. Suellau called a "scientific approach" which is an integral part of selling and must be balanced with the creative aspect of selling. Salesmen not only represent the company to customers, but they also keep management abreast of the customers' changing needs and new requirements, and are thus performing a "dual role."

Salesman's New Role

Another speaker on the panel was Fletcher L. Byrom of Koppers Co., Pittsburgh, Pa., who noted that the future role of the salesman would be "customer oriented." First noting that many purchasing men feel that salesmen are not contributing enough in helping the purchasing groups perform their functions, Mr. Byrom then discussed some of the changes taking place in the purchasing function. Among these changes are the increasing number of technically trained people who are manning purchasing departments and who are looking to the salesman for information "about over-all market

situations pertaining to his products." Thus the salesman must be knowledgeable in the field he serves and "must be prepared truly to represent his company in his territory."

Mr. Byrom also noted, however, that many salesmen in the chemical industry act only as liaisons between purchasing departments and their own home offices and "fall far short" of meeting their new responsibilities. Aid to salesmen in this area can be provided by management through the establishment of marketing policies. capital expenditure programs aimed at fulfilling projected market needs, and research programs. Even though he is provided with these aids, the salesman of tomorrow will have demands made upon him far beyond those which the average man looks on as part of his job today. He will have to think in terms of the broad perspectives of his markets, have broad interests, maintain an active search for knowledge, know his customers, understand technical service, be technically trained, know his products and their performance, and advise his management of the needs for new products and improvements of existing products. "The future definition of sales, at least in the chemical industry," Mr. Byrom concluded, will be "service to the customer in a manner which produces acceptable profits." **

Manual on Maintenance

Building maintenance techniques treated as an exact science should be the title of a new manual on the subject just published by the Service Products Division of S. C. Johnson & Son, Inc., Racine, Wis. Entitled "Sanitary Engineer Building Maintenance Manual" the 28 page illustrated booklet is impressively comprehensive, informative, accurate, and well organized. The first section is a chart of types of flooring which tabulates a description of each type of flooring, its features in use. special cautions to be observed and types of floor care products to be recommended.

Other sections cover: step by step procedures for cleaning floors and finishing them with water emulsion type products; use of special floor finishes; and day to day floor maintenance. The chapter on general cleaning gives detailed instruction on how to clean walls and ceilings and an admirable list of points to be observed in creating and maintaining sanitary and pleasant conditions in the washroom. Cleaning of windows and furniture receives attention.

One brief section deals with storage and care of maintenance equipment. "Safety is a matter of common sense", the booklet says and gives 12 common sense rules on floor safety and 15 safety points to be observed in various other phases of cleaning and maintenance. Special maintenance problems (16) are tabulated with their respective causes, cures, and measures for their prevention.

Advice on the removal of 23 different types of floor stains and 24 kinds of carpet stains is listed in the section dealing with stain removal.

The publication is addressed to the sanitary engineer. Certain sections, such as the advice on stain removal, on window and wall cleaning, and some of the floor care information would be of great help to any homemaker, this reviewer feels.

Speakers for the eighth annual chemical sales clinic of SAACI included, left to right, J. E. Magoffin, Eastman Chemical Products, Inc.; V. W. Suellau, General Chemical Division, Allied Chemical Corp.; F. L. Byrom, Koppers Co.; Jesse S. Nirenberg, TradeWays, Inc.; Sam L. Brous, General Electric Co.; Ralph A. Clark, J. T. Baker Chemical Co.; F. W. Steckmest, Shell Oil Co.





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When it comes to the family wash, today's housewife demands above all else, that elusive and intangible "clean odor," What is it? Largely a psychological concept...however, certain carefully balanced combinations of perfume ingredients can give to a washday detergent that special "sunshine clean" quality. Furthermore, this desired fragrance will cling to the finished wash...if the perfume compound is properly formulated. In the D&O Industrial Odorants Laboratories, a complete group of such "washday fragrances" has been developed, not only for detergents but for blueing, starch and bleaches as well. Let the D&O perfume chemists put the "odor of cleanliness" into your laundry products. Samples on request.

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-and buy again-your liquid detergent built

with Monsanto TKPP

(tetrapotassium pyrophosphate)

"Persnickety, that's me. I like things clean - really clean - without spending half my life in the elbow-grease department. And that's why I'm crazy about these new, really effective liquid detergents*."

*7 "building" benefits make Monsanto TKPP the one essential

High solubilitylow turbidity

TKPP is the only alkaline builder so soluble that your liquid detergent can score peak, allpurpose cleaning power -you achieve a high concentration while you get a lower-cost compound.

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Monsanto TKPP stays fully active and in solution longest of any alkaline builder you can use in your liquid detergents ... has performance-proof of trouble-free shelf life.

Controls alkalinity for best stability

Through buffering, Monsanto TKPP provides and maintains the optimum pH for best cleaning and solution stability.

Excellent hardsurface detergency

See how Monsanto TKPP builds heavy-duty scouring action into liquid detergents. Gardner Scrub Test proves effectiveness (below).



Compare the superior solution clarity of a typical liquid detergent com-pound built with Monsanto TKPP.

Both samples are unfiltered - have same concentration of TKPP. Formulation available on request.

> Vinyl floor tile soiled with a blend of metallic dirt, kerosene, petrolatum, lubricating oil, shortening, and scrubbed 200 strokes according to a standard procedure.





DETERGENT DETERGENT DETERGENT WITH NO INORGANIC INORGANIC "A" MONSANTO TKPP



inorganic for all really effective liquid detergents

5

Multiplies detergency

Through its own detersive ability and synergism with other ingredients, TKPP boosts liquid detergent cleaning power severalfold. 6

Keeps dirt in suspension

Monsanto TKPP captures soil particles and prevents them from being redeposited on surfaces being cleaned.

Reduces "hardwater headaches"

Like Monsanto sodium phosphates, TKPP improves the efficiency of liquid detergents by sequestering the "hardness" and preventing scum formation. Better performance at low, low cost: this is what Monsanto TKPP can deliver in all your medium- and heavy-duty liquid detergents.

Consider the seven valuable detergent-building benefits you get with Monsanto TKPP. Small wonder no other builder is so essential to liquid cleaner effectiveness and economy.



More liquid detergent is made with Monsanto TKPP than with any other inorganic builder





You get lowest-cost compounding flexibility with Monsanto detergent phosphates...



to boost profits, while making the most persnickety people happy *

For volume-discount purchases of Monsanto TKPP in less than car- or truck-load quantities, you can order in mixed shipment with the widest variety of sodium and potassium phosphates available—as well as with a complete line of SANTOMERSE (nonionic) and STEROX (anionic) surface-active agents. For convenience in bulk, you can get Monsanto TKPP in hopper cars designed for unloading dry solids or liquid solutions.

In many ways, Monsanto detergent materials contribute to your formulation ease, flexibility and lowest cost. For more details, TKPP samples or personal help, call your nearby Monsanto representative or service-minded distributor. Or use the convenient coupon.

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MONSANTO CHEMICAL COMPANY Inorganic Chemicals Division Department 99B, St. Louis 66, Mo.

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Company

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City Zone State

New Insecticide Ruling

Aerosol and other household insecticide sprays under new USDA labeling rules

REGULATIONS governing the labeling of household insecticidal sprays have been published by the Pesticides Regulation Branch of the Agricultural Research Service, USDA. The interpretation, now effective, codifies rules previously unwritten. which have determined the department's policies. Covered are petrolcum distillate sprays, aerosol type products, and pressurized space and contact sprays. The text of Interpretation 15, Revision 1, Part 363-Regulations for the Enforcement of the Federal Insecticide, Fungicide, and Rodenticide Act follows herewith in full:

Interpretation With Respect to Liquid and Pressurized Household Insecticides Acceptable for Generalized Application (Primarily Non-Deposit Form-

Since the issuance of Interpretation 15 with respect to labeling of mineral oil pyrethrum and similar contact household tly sprays (7 CFR 362.113), the marketing of new pesticides and changes in the production, use and requirements as to the use, of household tly sprays have rendered this interpretation obsolete. It is felt that the interpretation with respect to these products should be revised in order to provide the industry with information concerning current labeling requirements and to cover the new products of a similar nature which are now being marketed. Therefore, pursuant to the authority vested in me by § 362.3 of the regulations (7 CFR 362.3) under the Federal Insecticide, Fungicide, and Rodenticide Act (61 Stat. 163; 7 U.S.C. 135-135k), Interpretation 15 with respect to labeling of mineral oil-pyrethrum and similar contact household fly sprays is revised to read as follows:

§ 362.113. Interpretation with respect to liquid and pressurized household insecticides acceptable for generalized application (primarily non-deposit forming).

(a) Composition. These products are ordinarily marketed as solutions, emulsions, suspensions, or pressurized

products and are designed for use in undiluted form by the consumer. In a few cases, concentrated products requiring dilution are marketed. These products usually have a petroleum distillate base, together with such auxiliary solvents as may be necessary to keep the formulation as a solution under conditions of relatively low temperature. Water is sometimes used in the liquid formulations. Auxiliary solvents such as methylated naphthalenes, methylated aromatic petroleum solvents, and methylene chloride are frequently used, although the latter is more common in pressurized products. The propellants commonly encountered are known as Propellant 11 (trichloro monofluoro methane) and Propellant 12 (dichloro difluoro methane). Propellant 12 may be used alone or in various proportions with Propellant 11, methylene chloride, or methyl chloroform. This interpretation is not intended to cover products intended primarily to be used in such a manner as to deposit substantial quantities of insecticides on treated surfaces.

Ingredients Specified

(b) Acceptable ingredients. The following chemicals are frequently encountered in household-type insecticides of this class. The percentage figures given are the maximums which are ordinarily encountered in this class of products. An asterisk indicates that the percentage specified is the maximum being accepted. The other percentage figures should not be regarded as maximum at the present time, even though further information may necessitate modification of these figures and the use of additional asterisks. All percentage figures are expressed in terms of weight, Ingredient statement requirements are discussed in paragraph (c) of this sec-

Pesticidal chemical	Percentage in liquid space and contact sprays	Percentage in aerosol mist sprays
Allethrin (allyl homolog of cinerin I) (0.5	0.6
diethyl ether—', (Lethane 384)	3.5	4.0
Beta-thiocyanoethyl esters of mixed fatty acids contain- ing 10 to 18 carrbon atoms—". Beta-batoxy-heta'- thiocyanodicthyl cther—". (Lethane 384 Special)		1.0

Butoxypolypropylene glycol		
Dichloro diphenyl dichloro-	10.0	5.0
ethane - (TDE)	*6.0	None
Dichloro diphenyl trichloro- ethane-'/ (DDT)	*6.0	*5.0
Diethyl diphenyl dichloro- ethane [or 1,2-dichloro-2,2- bis (4-ethylphenyl) ethane] — % (95% of the total amount of technical ingre- dient present). Related compounds — % (5% of the total amount of tech-		
nical ingredient present)	**	40.0
(Perthane) Gamma isomer of benzene hexachloride from lindane	*5.0	*3.0
-%	*0.1	None
soborny thiocyanoacetate -% (82% of the total amount of technical ingre- dent present). Related compounds -% (18% of the total amount of tech- nical ingredient present)		
(Thanite)	3.5	*3.0
Malathion - 42	2.0	*5.0
Pyrethrins — (Usually "Other Cube Resins," an- other active ingredient, is also present in formulations	0.2	0.6
containing this ingredient)	0.1	0.33
Technical methoxychlor —% ³ Terpenepolychlorinates (66% chlorine) —% and an additional statement: "Chlorinated Camphene, Pinene, and Related Terpenes."	5.0	*3.0
(Strobane)	*2.0	92.5
Toxaphene —',; '	*2.5	*2.5
Synergists		
Di-n-propyl maleate isosa- frole condensate ————————————————————————————————————	2.0	2.0
N-octyl-bicycloheptene dicar-		
Octyl sulfoxide of isosafrole	2.5	2.0
-' (Sulfoxide)	2.0	4.0
Sesame oil extractives -%5	1.5	8.0
Technical piperonyl butox-	1.5	2.0
ide - "	1.5	2.0

Thiocyanate.

O.O-dimethyl dithiophosphate of diethylmercaptosuccinate.

Equivalent to $-\ell_{\rm f}$ (88% of the first percentage) 2.2-bis (p-methoxyphenyl) 1,1,1-tri-chlorocthane and $-\ell_{\rm f}$ (12% of the first percentage) other isomers and reaction products, Technical chlorinated camphene (67% to 69% chlorine).

Containing sesamin $-\ell_{\rm c}$.

Equivalent to $-\ell_{\rm c}$ (80% of the first percentage) (butylearbityl) (6-propylpiperonyl) ether $-\ell_{\rm c}$ related compounds (29% of the first percentage).

Acceptable Mixtures

These products frequently contain a combination of pesticidal ingredients, together with synergized pyrethrins and thiocyanates. These ingredients may be used in any combinations desired except that when combinations of phosphates and/or chlorinated hydrocarbons are proposed, concentrations of these ingredients should be proportionately reduced. The following is illustrative of a mixture of DDT and malathion which would be



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As the largest producer of perfume materials in America, Givaudan maintains special laboratories devoted exclusively to the development of new and finer aerosol fragrances and the solution of problems in aerosol perfuming.

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acceptable in such products:

Insecticidal mixture:
DDT 3 percent.
plus plus plus
Malathion 1 percent.

DDT when used alone may be present to the extent of 6 percent. Malathion when used alone may be present to the extent of 2 percent. When combinations of these ingredients are used the quantities of each must be proportionately reduced as in the above illustration. A finished liquid formulation containing 1.0 percent malathion plus 1.5 percent DDT would also be accepted. There would be no objection to any separately acceptable amounts of the thiocyanates or synergized pyrethrins being added to a liquid formulation.

(c) Ingredient statement. The following form of ingredient statement would fulfill legal requirements for a hypothetical liquid mixture containing pyrethrins, petroleum distillate, piperonyl butoxide, perthane, and malathion:

Active ingredients:			I	20	7	c	€'	nt
Pyrethrins			6	9	×	6	Ŕ.	+->
Malathion		 ,				×	1	
Technical piperonyl butoxide			8	8	×			
Diethyl diphenyl dichloro ethan								
Petroleum distillate	×.		*	4	8	*	4	
Total O.O-dimethyl dithiophosphate mercaptosuccinate.		. 6		li	et			00

mercaptosuccinate.

² Equivalent to . percent (butyl carbityl)
(6 propyl piperonyl) ether and . . percent related compounds.

The correct figures should, of course, be entered in the blank spaces. As an alternative, the names of the ingredients may be listed in the descending order of their respective percentages. In such cases the heading "Active Ingredients 100%" should be used. The term "100%" may be omitted when actual percentage figures are given for each active ingredient. An illustration of this alternative form of ingredient statement appears elsewhere for a hypothetical pressurized formulation.

Following forms of ingredient statements would fulfill legal requirements for a pressurized product containing pyrethrins, piperonyl butoxide, and DDT:

Active ingredients:		Percent
Pyrethrins		
Technical piperonyl butoxide		
Dichloro diphenyl trichloroethane		
Petroleum distillate		
Inert ingredients		

Total 100
Equivalent to percent (butyl carbityl)
(6 propyl piperonyl) ether and percent related compounds

01

Active ingredients: Percent
Petroleum distillate
Dichloro diphenyl trichloroethane
Technical piperonyl butoxide
Pyrethrins
Inert ingredients:
Methylene chloride
Dich'oro difluoro methane
Consists of (butyl carbityl) (6 propyl
piperonyl) ether and related compounds

In all cases, the correct percentages should be entered in the blank spaces. The tabulation of pesticidal chemicals appearing in paragraph (b) of this sec-

tion gives appropriate suggestions for the naming of ingredients. Except for explanatory parenthetical wording, the information given in paragraph (b) of this section is suitable for use in label ingredient statements. Interpretation 5 gives further information on the preparation of correct ingredient statements. The ingredient statement should in all cases accurately reflect the complete composition of the product. The names given for the various ingredients must be the common names, if they have common names. Otherwise, the chemical names as specified above should be used Trademarked names should not be used in the ingredient statement.

Insecticidal Value

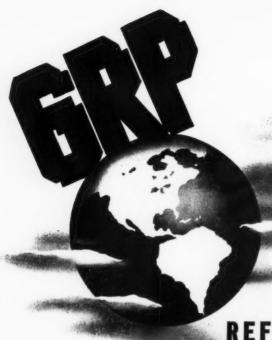
(d) Basic insecticidal value - (1) Petroleum distillate sprays. spray products of this class should have as a minimum the insecticidal value of a petroleum distillate solution of pyrethrins containing 114.8 mg, of this ingredient per 100 cc. of solution, For practical purposes, this reference standard should have the same biological value as the current Official Test Insecticide which is prepared and distributed under the supervision of the Chemical Special ties Manufacturers Association, 50 East 41st Street, New York 17, New York Any testing procedure which accurately compares the toxicity of the standard mixture to the liquid product being evaluated, will be considered. The test ing procedure published as "The Peet-Grady Method" and the "Cockroach Spray Test Method" by the abovementioned association will be considered as satisfactory for flies and roaches, respectively. These methods will not be regarded as interchangeable, since they only evaluate the comparative toxicity of liquid insecticides against the pests named. These methods are given in the 1959 edition of the Blue Book and Catalogue edition of Soap and Chemical Specialties, published by the MacNair-Dorland Company, 254 West 31st Street, New York City. These testing procedures may not be considered as adequate or applicable when new or unusual pesticidal chemicals are included in the formulation or if claims and direcfor killing insects other than roaches or flies are proposed. If such products are intended to be used for killing household pests other than flies or roaches, special attention will be given to assessing the toxicity of the pesticide for the purposes which are proposed. Full information on the proposed claims and directions should be submitted in each case. It will be necessary for the applicant to submit data to establish the safety of any new or unsual chemical or pesticidal treatment that is proposed. It is the usual practice to consult with the Public Health Service of the Department of Health, Education, and Welfare on such matters.

(2) Aerosol-type products. Pressurized formulations classified as "aerosols" are usually marketed in dispensers ranging from a few ounces to 5 pounds. However, most of the items designed for

mass distribution are packaged in sizes of 12 ounces and 16 ounces. These products contain 80 percent or 85 percent of propellant gas, usually a combination of Propellant 11 and Propellant 12. Methylene chloride or methyl chloroform is frequently substituted in whole or in part for Propellant 11. As a minimum, these products should have the knockdown and insecticidal value of a product containing 85 percent of a 50-50 mixture of Propellant 11 and Propellant 12, and 15 percent of petroleum solvent containing sufficient pyrethrum extract and DDT to yield 0.4 percent pyrethrins and 2 percent DDT in the total formulation. The reference standard should have the same biological value as the current Official Test Aerosol dispenser of the Chemical Specialties Manufacturers Association. These dispensers may be obtained from the Association at 50 East 41st Street, New York 17, New York. Any testing procedure which accurately compares the knockdown and toxicity of the test aerosol with the reference standard will be considered. The official method of the Association, published in the 1959 edition of the Blue Book and Catalogue, as previously noted, will be accepted, provided the results demonstrate that the product is no less effective in 5-minute, 10-minute and 15-minute knockdown and 24-hour mortality intervals than the comparison formulation when tested against house flies at the same dosage or less. This method of testing may not be considered as adequate if claims and directions for killing insects other than flies are proposed or if new or unusual ingredients or insecticidal usage are involved. In any test, the spray from aerosol dispensers should be in a finely divided form, in which 80 percent or more of the individual spray particles have a mean diameter of 30 microns or less and none of the spray particles have a diameter of more than 50 microns. Products which do not have the necessary biological activity when tested by the specific methods or which dispense a coarser type spray should not be represented as being "aerosols." information should be filed in all such cases. It will be necessary for the applicant to submit data to establish the safety of any new or unusual chemical ingredient or pesticidal treatment that is proposed. It is the usual practice to consult with the Public Health Service of the Department of Health, Education, and Welfare on such matters.

Pressurized Sprays

(3) Pressurized space and contact sprays. Products of this class are less common, and differ from the aerosol-type products in that their biological performance is of a lower order and usually somewhat slower in effect on the insects which are sprayed. These products deliver mist sprays intermediate between aerosol-type sprays and those which are intended to deposit an insecticidal residue of a chemical. They should have the biological performance of the reference standard specified for the aerosol-type product when a dosage of no more



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than twice that used for the same reference standard has been applied. Also, for these purposes the testing procedure may be modified to omit comparisons of the knockdown at the 5-minute and 10minute intervals. The comparisons in such cases will be only at the 15-minute knockdown and 24-hour mortality intervals. The product will be regarded as having sufficient insecticidal value if the average 15-minute knockdown and 24-hour mortality figures are no more than 5 percentage points under the comparable figures for the reference product, If claims and directions for killing insects other than flies are included, or if new or unusual chemicals are included in the formulation, individual consideration will be given to the proposed claims and directions on a separate basis. It will, of course, be necessary to submit data to establish the safety of any new or unusual ingredient or pesticidal usage. It is the usual practice to consult with the Public Health Service of the Department of Health, Education, and Welfare on such matters

Use Directions

(e) Directions for use-(1) General. In all cases, the labeling should bear adequate directions for use against all of the insects named in the labeling. Although these products are commonly referred to as "fly sprays," "aerosols," or "pressurized products," they are usually recommended for use against a number of household insects, including house flies, mosquitoes, roaches (water bugs), bed bugs, ants, carpet beetles, brown dog ticks, and clothes moths. These products are primarily contact insecticides and in order to be effective must hit or wet the individual insect with the spray mist, Since the habits and life cycles of different insect pests vary considerably, the directions must in each case be adapted to the particular variety of insect which is causing annovance and the type of structure or building in which the prodnet is used.

(2) Particular insects—(i) Flies and mosquitoes. Directions for use against these pests should provide for closing the doors and windows and thoroughly spraying all parts of the room, particularly toward the ceiling, so as to till the room with a fine mist. The room should be kept closed for 10 to 15 minutes and the fallen insects swept up and destroyed. However, when strong formulations are used, containing substantial amounts of rapidly acting paralytic agents, it is simply necessary to ascertain that the various insects have been thoroughly enveloped in the spray mist. Pressurized aerosol formulations and pressurized sprays may also be used in a manner quite similar to the liquid products. Dosages of aerosol and pressurized formulations are sometimes expressed in terms of seconds of discharge with appropriate adjustments for low and high delivery rate dispensers. These dosages usually are in the range of 4 to 5 grams of aerosol mixture in mist form per 1000 cubic feet of space.

(ii) Household ants and roaches.

The directions for use against these pests should provide for thorough spraying into all parts of the room suspected of harboring these pests. Special attention should be paid to cracks and hidden surfaces around sinks or food storage areas where these insects may be hiding. It is necessary in all cases that the insects be contacted directly with the spray. Treatment around doors and windows is desirable in connection with directions for use against ants. Pressurized formulations may also be used, but since liberality of application is essential, small pressurized dispensers may not give as good results in some cases. Repeated applications should be specified in all cases. Special care should be taken to use these products in such a manner that food and food atensils will not be contaminated. If any spray contaminates cooking utensils, silverware, or dishes, they should be thoroughly cleansed.

(iii) Bed bugs. The directions for use against these pests should provide for thorough spraying of the bed, the springs, and the mattress, as well as the baseboards and wall cracks about the bedroom. Repeated applications are usually necessary for good results against these pests. In the case of malathion, the maximum acceptable concentration for this use is a 1 percent spray, which in any case is to be applied lightly to the mattress.

Moth Sprays

(iv) Clothes moths and carpet beetles. The directions for use against these pests should provide for cleaning all articles to be protected and for thorough spraying, particularly of seams and folds. The interior of trunks, closets, cupboards, and other storage containers should also be thoroughly sprayed. Unless the sprayed articles are to be stored immediately in moth-tight containers, the directions should provide for repeating the treatment at least once a month. In the case of upholstered furniture, the directions should provide for spraying the interior of the furniture, as well as the outer surfaces, unless the furniture can be fumigated to kill any hidden infestation of these pests. Rugs and carpets that are to be treated may also be spraxed, not only on the top surfaces, but also on the under side. However, when carpet beetles are a serious problem, it is usually desirable to use a residual type insecticidal treatment. Pressurized products, including aerosols, may be used on the same terms, but are less suitable, since small dispensers do not ordinarily permit the liberality of treatment which is usually necessary for good results

(v) Fleas and brown dog ticks in buildings. Directions for use against these pests should provide for liberal applications to floor areas, cracks and crevices, sleeping quarters of animals, behind pictures, and wherever these insects may be suspected of harboring. Liberal and repeated applications directly to the individual pests are desirable in all cases.

(vi) Mosquitoes and small flying

insects outdoors. Liquid and pressurized products of the types described can often be used effectively as mist spray applications for tall grass, shrubbery and around lawns where these pests may hover or harbor. This usage is suitable only in still air and requires frequent reapplication to kill additional insects that may be drifting into the area. It is not suitable for coping with any large influx of insects. Care should be taken to avoid wetting vegetation since many of these formulations are phytotoxic. Only mist spray application should be directed.

Cautionary Labeling

(f) Caution and warning statements-(1) General. All economic poisons are required to bear warning or caution statements which are necessary to protect the public from injury, and acceptable directions for use must be consistent with these requirements. These cautions and directions are quite variable, depending on the composition of the product and the manner of use which is intended. The detailed precautions, especially for operator protection during use of most of the various pesticidal ingredients, are given in the current revision of Interpretation 18. Cautions to protect food and food handling utensils from contamination are often required and are appropriate in any case. These products should ordinarily be kept out of reach of children and pets.

(2) Liquid household insecticides. In all cases where petroleum distillate or other combustible formulations are involved, warning against spraying in the presence of open flame or sparks is required.

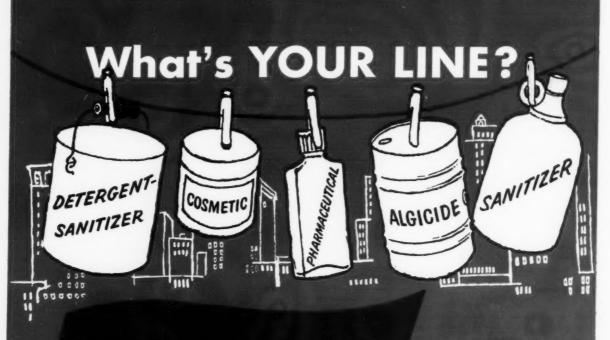
(3) Pressurized household insecticides. Since many of these products contain significant amounts of petroleum distillates, other combustible substances, and/or halogenated hydrocarbons yielding irritant substances in the presence of open flame or heated surfaces, and since bursting or leakage of contents may occur at high temperatures, all pressurized products (except as specified hereafter) should bear the following warning or its practical equivalent:

WARNING: Contents under pressure. Do not puncture. Do not use or store near heat or open flame. Exposure to temperatures above 130° Fahrenheit may cause bursting. Never throw container into fire or incinerator.

Pressurized products which have extreme flammability or explosive hazards will be considered separately and additional precautionary labeling prescribed. Methods for determining the need for such additional precautionary labeling may be obtained from the Director, Plant Pest Control Division, Agricultural Research Service, U. S. Department of Agriculture, Washington 25, D. C. It is the responsibility of the registrant to provide precautionary labeling which will be adequate, if complied with to prevent injury to persons using or handling his product.

(g) Deterioration. Petroleum distillate sprays containing pyrethrins, if ex-

(Turn to Page 101)



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ROCCAL Concentrates are available in special-lined, non-returnable metal pails and drums,

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Sterwin Chemicals INC

Subsidiary of Sterling Orug Inc. 1450 BROADWAY. NEW YORK 18. N. Y posed too long to light in ordinary glass bottles, or stored for long periods of time, may lose their efficiency due to deterioration of the active ingredients. Also, certain types of packaging may permit deterioration. All products should maintain their active ingredients at the levels declared on the label and represented at the time of registration as long as they remain in unopened containers in channels of trade.

(h) Grade classification. The grade classifications given in Commercial Standard CS 72-54 apply to liquid fly sprays and should be used only to classify such products. If a claim for grade classification is made for a fly spray, it should be only such a grade as may be fully justified by the killing action and knockdown effect of the product when tested against house flies. Except for fly sprays, there is no generally recognized grade classification for household insecticides and no such claims should be made other than for fly sprays.

Unwarranted Claims

(i) Unwarranted claims. These products are not effective against all household insects, and claims for effectiveness against insects generally or all insects, are unwarranted and should not be made. These products, as customarily marketed, are not effective against termites and cannot be relied upon to kill any insect which cannot be reached directly by the spray. This applies also to the eggs of many insects, which are often placed in inaccessible cracks or hidden surfaces. Claims for extermination are not warranted and should not be made. Products of this type are injurious under certain conditions to both men and animals and may contaminate food when improperly used. Therefore, their labels must ordinarily not bear any unqualified claims such as "Non-Toxic," "Non-Poisonous," "Non-Injurious," or "Harmless to Man and Animals," Such products are of no value in disinfecting and will not prevent diseases, and claims to that effect should not be made.

(j) Registration. All applications for registration should include duplicate copies of all labels, circulars, or other literature which may be associated with or accompany the product at any time, Complete information concerning the composition of the product should also be furnished with the application. If the product does not conform to a conventional pattern of pesticidal usage against household pests, data should be furnished to demonstrate the practical value of the product for the various pests which are named in the labeling. Consultation with applicants is solicited at all times, in order to eliminate possible misunderstanding.

(Sec. 6, 61 Stat. 168; U.S.C. 135d)

Effective date. The foregoing interpretation is made effective upon publication in the Federal Register.

Done at Washington, D. C., this 17th day of September 1959.

E. D. Burgess,
Director,
Plant Pest Control Division.

Iodine Chlorine's Equal as Disinfectant

EFFICIENCY of iodine as a disinfecting agent for swimming pools was tested and found at least equal to that of chlorine in the same application by a team of investigators at the University of Florida, Gainesville. Results were reported by A. P. Black, James B. Lackey, and Elsie W. Lackey and appeared in the August 1959 issue of Am. Journal of Public Health, 49 (8): 1060-68. Some of chlorine's unpleasant side effects are said to be climinated by the use of iodine in swimming pools.

Eight pools were treated with potassium iodide at the rate of two to four parts per million of iodine per week. The iodine was released by feeding chlorine at levels low enough to leave a residual of iodide in addition to the free iodine made available. (One part of iodine is released from iodide by 0.28 part of chlorine.)

On the basis of equal residuals of iodine and chlorine, the quality of the treated water is the same. However, free chlorine combines quickly with ammonia introduced by swimmers and may be immediately converted to the slow acting chloramine form. Since iodine does not combine with ammonia its efficiency is less dependent on bather load than that of chlorine.

Another important factor is the amount of element required to maintain a proper residual. For example, in one pool chlorine was fed at the rate of 7.7 p.p.m. per turnover of 15.6 p.p.m. per day, or 109.2 p.p.m. total chlorine per week. Chlorine residuals ranged from 0.2 to 0.8 p.p.m. with pH between 7.1 to 7.9, whereas iodine fed at the rate of four p.p.m. per week as potassium iodide (released by small amounts of chlorine) provided water of acceptable quality with residuals in the range of 0.11 to 0.40 p.p.m, with some higher values recorded.

A daily dosage of one p.p.m. of iodine would be sufficient under

most conditions of use for home pools and perhaps double that figure for more heavily used public pools, the authors estimate. No odors or tastes were observed and no eye irritation reported by bathers in the course of these studies, which continued for six months. No discoloration of the pool water is said to be caused by iodine added continuously through the pool circulating system.

The work, which was sponsored by the Chilean Iodine Educational Bureau, Inc., New York, involved chemical and bacteriological analyses of 645 individual samples and inoculation of 6,588 tubes. The article gives full details of sampling procedures and methods of bacteriological and chemical analysis.

Visits Cosmetic Makers

D. F. Anstead, managing director of D. F. Anstead, Ltd., Romford, Essex, England, completed a two week visit to the United States early last month during which he called on his American principals and cosmetic manufacturers. D. F. Anstead, Ltd., are color specialists for the cosmetic and food industries in Great Britain and much of the continent. Among the firms which Mr. Anstead visited are American Cholesterol Products, Inc., Edison, N. J., Thomasset Color Co., Newark, N. J., Whittaker, Clarke & Daniels, Inc., New York, and Van Dyke & Co., Belleville, N. J.

SOCMA to Meet Dec. 2

The annual meeting of the Synthetic Organic Chemical Manufacturers Association has been scheduled for Wednesday, Dec. 2, at the Hotel Roosevelt, New York. It will be held immediately after a luncheon which begins with cocktails at 12 noon. Principal item on the meeting's agenda is the election of officers and two members of the Board of Governors.

There's something different about



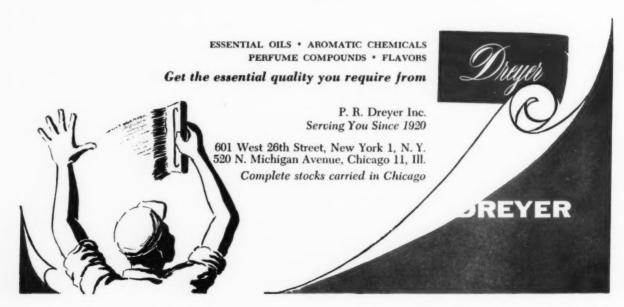
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Today there's new drive at Dreyer. We are a vigorous, modern organization with young, look-forward ideas. Up-to-date thinking here . . . thinking ahead . . . is pulling double harness with experience. The team's working hard and well.

So depend on Dreyer more than ever.

We can help you and save you money.



CSMA Aerosol Clinics

(From Page 78)

ducted by J. H. Beacher of Avon Products, Inc., Suffern, N.Y. Citing many typical complaints received by his company on its acrosol products, Mr. Beacher noted that most of these were due to failure of valve components to function properly or some other production fault. In a survey of reasons why these products were returned to the company, it was found that many were in good operating condition, indicating that consumers were not aware of proper usage of the aerosol type of container.

Formulation Panel

The first panel, which dealt with aerosol formulation problems, featured as participants: Philip M. Prussak, chief chemist of Associated Brands, Inc., Brooklyn; Milton Fowks, vice-president and director of research for ConnChem-PowrPak, Inc., Bridgeport, Conn., and Fred Presant, director of research and development, Aerosol Techniques, Inc., Bridgeport, Panel moderator was David Tillotson, Pennsalt Chemicals Corp., Philadelphia. The panel answered questions submitted by the audience.

Question: "What is the role of the aerosol chemist in formulation?"

Answer: "He is the houseman that brings together all the information he can obtain through his suppliers, his own educational background and experience."

Question: "How do you set up a project for corrosion stability?"

Answer: "Corrosion is everpresent in aerosol products. The role of the filler is difficult because he handles such a wide range of products. In addition, there is never enough time to invest in testing the shelf life of products he is filling."

Another answer to the same question: "We tried to set up a definite program to investigate cor-



Stanley Goldberg, right, of Aerosol Research Corp., Forest Park, Ill., reports on his recent trip to Europe at Chicago aerosol clinic to Douglas Atlas, vice-president of G. Barr δ Co., Chicago,

rosion. We called upon container, valve and chemical suppliers to aid us. We did not have any problems with products we had made in the past. New products, such as an oven cleaner with a strongly alkaline system, can be troublesome. On this product we studied the valve and container."

The third member of the panel answered that generally he tries to call in the container supplier and explain to him in detail the nature of the product to be filled. The container supplier is then asked to suggest a container lining or tinplate weight that might be used. This filler also asks the valve supplier for information on various materials used for gaskets and valve coatings. Next, similar products that have been placed in storage rooms are studied. Containers are examined periodically for stability. If possible, this panelist said he would examine containers for corrosion at the end of one. two, three, four, five and six months or a year. Water based products present even more complex problems. In addition this panelist said it was a "must" to investigate inhibitors. Generally, he said, the filler has nothing to fall back on but experience. Corrosion is a "most complex prob-

Question: "How do you

formulate acrosol products for cold fill and pressure fill? What are the differences?"

Answer I: "The main consideration in determining whether cold or pressure fill is to be used is the action of the product at low temperature. For this reason it is impossible to cold fill many products. The problem of pressure filling generally is one of finding the correct valve, and one which can be filled at high speed. Cold filling is normally done at temperatures of from O to -20°F. At these temperatures there is a great increase in viscosity, and in some cases precipitation. Sometimes when precipitation occurs pressure filling is conducted under agitation.'

Answer II: "The nature of the formulation usually determines the type of filling."

Question: "What problems may be encountered in formulating powder aerosols?"

Answer: "Problems are numerous in formulating powder aerosols. The loader and/or marketer must first decide on the type of container to be used. Powders have been dispensed from cans, plastic containers, and plastic coated glass bottles. Most important, however, is the choice of the valve, since it is an integral part of the formulation. Clogging of



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MORTON CHEMICAL COMPANY

110 N. Wacker Drive, Chicago 6, Illinois Plants: Ringwood, Illinois—Manistee, Michigan Weeks Island, Louisiana the valve is a major problem. Orifice size alone is not the complete answer to valve clogging. Large orifices have clogged and small ones have not. The valve mechanism seems to be more important than the size of the orifice. Powder tends to collect at the orifice of the actuator because of the presence of moisture."

On the question of the actual formulation of the powder, this speaker said he generally put up samples in clear containers to study the settling of the powder. He also added that sometimes it is necessary to use a ball in the dip tube to break up the collection of powder.

Another speaker pointed out that a cold spray versus a warm spray was a big problem in formulating powder aerosols. Also troublesome, according to this speaker, was the filling of the powder into a container. Either the filler must be covered or the powder encapsulated. When cans move under the powder filled by cold filling, the powder splashes up and settles on the lip of the can causing an improper seal of valve to container.

On the question of powder particle size, one panelist pointed out that studies are now underway which will be of benefit to all aerosol loaders. Extremely small particle size is not the solution to clogging since a fine powder would stick to the face. Lubrication of aerosol dispensed powders is most important. Isopropyl myristate and similar materials are useful as lubricants. Without lubricants the loader is looking for trouble in packaging aerosol powders, this panelist warned.

"Perfuming pressure packaged powders presents much the same problem as conventionally packaged powders, except that such carriers as magnesium carbonate have to be omitted from aerosols.

The final question directed to the panel on formulation dealt with the formulation of spray emulsion systems. The first panel-

ist to answer the question pointed out that it is possible to spray water in the three phase system and in the emulsion system. He also stated that the emulsion system has the widest range of application for aerosol products. The use of the water oil emulsion system for aerosol products is accomplished by the use of a suitable emulsifier in which the water is the internal phase of the system. This results in a spray of finer particle size. With such a system, corrosion is minimized since the propellant, which surrounds the product, comes in contact with the container

Oil-in-water emulsions are most commonly used for aerosols. Such a system requires a minimum amount of propellant. The propellant is emulsified with the product to form the internal phase of the system. With such a system foam is produced immediately. With an oil/water system the mechanical breakup feature of the valve is very critical since this gives the spray.

Commercial Filling Panel

The panel assigned to discuss commercial filling methods and problems was made up of: John Hart, senior chemist, J. C. Stalfort & Sons, Inc., Baltimore; Anthony Iannacone, technical director, Fluid Chemical Co., Newark, N.J., and Albert Osman, plant manager, Thomasson of Pa., Inc., Norristown, Pa. Panel moderator was Roy I. Ferry, district manager of Kartridg-Pak Machine Co., Franklin Park, Ill. This panel, like the previous one, answered questions from the audience. Questions were submitted in writing in advance and were read by Mr.

Question: "How can we reduce down time?"

Answer: "1. By the use of standby equipment, and 2, by proper scheduling." Another panelist explained that at one filling plant with which he was familiar if a pump were subject to failure, another one was tied into the line to operate in case of a breakdown. This same technique was used for electrical equipment such as relays and timers. This panelist summed up by suggesting that the best method of avoiding shutdowns was to analyze equipment that can "hurt" the filler and then try to provide standby equipment.

Mr. Hart said that his firm holds weekly meetings to decide on the best procedure for scheduling. Generally, he said, it was the practice to run the most critical product, such as a hair spray, first and then load a room deodorant and insecticide in that order. A "flushed, pre-flushed" system for cleaning filling lines is used at Mr. Hart's plant. A solvent common to the product which has just been filled is used following a cold fill run.

Mr. Hart cautioned the audience to "make sure you have all the supplies in the building required for a particular product before starting to load."

The importance of proper maintenance to avoid or reduce down time was stressed by the three panelists. One panelist summed up by stating that "on cold fill equipment you soon learn where weak points are in the plant."

The necessity of having the proper personnel to take care of refrigeration equipment and personnel familiar with the line to maintain it was also stressed.

"Don't substitute equipment that maintenance personnel is not familiar with," was the comment of another panelist. He also pointed out the importance of preventive maintenance and a crew for checking equipment. This group moves from line to line seeing to it that equipment is functioning properly. This crew is not responsible for operating the line.

Mr. Hart explained that his firm builds up a backlog of small or routine jobs to simplify scheduling and to make it more flexible. He also pointed out that sometimes it is feasible to fill but not label products. **



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LETHANE 384

SOAP and CHEMICAL SPECIALTIES

Hardware Show

(From Page 87)

and gallon sizes, the product is said to be resistant to dry cleaning solvents, but can be removed by laundering in soap and water. The flameproofer may be applied with a plastic sprayer supplied with the bottle.

H. F. Staples & Co., Medford, Mass., introduced "Floret", a scented floor finish for vinyl tile.

Other chemical specialties on display at the Hardware Show were "Ice-Rem", an ice melting compound made by Speco, Inc., Cleveland. The product has been repackaged. It is now available in five, 10 and 25 pound polyethylene bags. The use of this packaging material makes the product easier to store, according to Speco, because of reduced absorption of moisture. In addition, the lithographed package has added sales appeal and the product is visible.

Sewage treatment chemicals were exhibited by Camp Chemical Co., Brooklyn, and Circle Research Laboratories, Glen Ridge, N. J.

Kwik Chemical Products Co., Aberdeen, Md., featured its line of paint and varnish removers.

Monsanto Man Advanced

Barton MacDonald, a member of the New York district sales staff, inorganic chemicals division, Monsanto Chemical Co., St. Louis, Mo., has been advanced to an assistant district manager, it was announced recently by W. R. Corey, division director of industrial sales. Mr. MacDonald continues to supervise sales in central and southern New Jersey, Delaware, Maryland, and eastern Pennsylvania. He has been with Monsanto since 1951 when he joined the New York sales group.

New Armour Sales Office

Armour Industrial Chemical Co., Chicago, recently opened a western regional sales office in Portland, Ore., and appointed E. L.



New "MS-2" flameproofing compound of International Flameproofing Corp.. San Antonio, Tex.. made its debut at show.

Rhodes as western manager of aliphatic nitrogen derivatives sales. Mr. Rhodes is responsible for sales in Oregon, Washington, Idaho, and Nevada. He also acts as technical coordinator for the Armour sales agent. Paul W. Wood Co., Los Angeles and San Francisco, which covers California and Arizona. Mr. Rhodes has been with Armour since 1951 when he joined the market development department.

As Reader Sees It

(From Page 47)

would have to serve one year as an apprentice, laying powders.

With this type of a state law, there are always illegal means found to circumvent its provisions. You cannot fake a degree from a recognized university.

Sidney J. Coyne Coyne Chemical Co. Los Angeles 23, Calif.

"Phoney" Paper

Editor:

I have been a constant reader of *Soap and Chemical Specialties* for several years, but I don't think I have ever read a paper in *Soap* that is so obviously phoney as "Bleaches and Brighteners", which appeared in the September issue.

I have done a considerable amount of work on the use of brighteners in detergents and have never, under any conceivable circumstances, found results even remotely similar to those shown in the illustrations.

There is only one possible explanation of the illustrations: Illuminate them with ultraviolet light only and use only an ultraviolet sensitive film in the camera. This would not, of course, explain the difference between "Beads O' Bleach" and liquid bleach.

Leonard A. Falwitch 735 Rhoads Drive Springfield, Pa.

Textile Odor Control

Editor:

The article, "Bacteriostats in Home Laundry Detergents", by R. E. Vicklund, in the April, 1959, issue of *Soap and Chemical Specialties*, had some very interesting things to say about the use of bacteriostats in connection with odor control and sanitizing purposes for many articles of clothing.

I would like to point out, however, that Mr. Vicklund's statement "... poor laundry resistance of such treatment remains a major short-coming ..." is no longer valid. Ions Exchange & Chemicals Corp., New York, has developed an antibacterial treatment for textiles that has proven wash-resistant for more than 70 washings, considerably longer than the industry-recognized life expectancy table for most clothing articles.

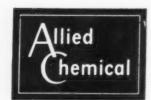
Called "Eversan", this treatment remains effective despite washings in cold, lukewarm, and even boiling water, and even when the fabric is washed with detergents and bleaches such as chlorine. The process is being marketed now by Yardney Chemix Corp., New York.

Paulette S. Barrett News Director Yardney Chemix Corp. 40 Leonard St. New York 13, N. Y.



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Silicates in Detergents

(From Page 54)

- R. C. Merrill and R. Getty, J. Phys.
 Colloid Chem. 51 (4), 489 ff (April, 1950).
- 12) J. D. Carter, Ind. Eng. Chem. 23 (12), 1389 ff (December, 1931).
- 13) W. Stericker, Ind. Eng. Chem. 15
 (3), 244 ff (March, 1923).
 14) C. L. Baker, Ind. Eng. Chem. 23
- (9), 1025 (September, 1931). 15) K. L. Weber, Soah, Chem. Spec. 33
- 15) K. L. Weber, Soap, Chem. Spec. 38
 (5), 181 (May, 1957) Abstr.
 16) Research Report to Members of The Linen Supply Association of Amer-
- ica 9 (1), (November, 1958).
 17) R. Getty and N. W. McCready, J. Am. Oil Chem. Soc. 30 (5), 193 ff (May, 1953).
- 18) V. Mills, H. B. Stromberg and C. B. Kemp, U. S. P. 2,712,529 (July 5, 1955), The Procter & Gamble Comtense.
- Philadelphia Quartz Company, unpublished work.
- G. H. Johnson, Am. Dycstuff Rept. 45 (5), P-122 ff (February 27, 1956).
- Technical Information (British Nylon Spinners, Ltd.), Advance Report #9 (August, 1958).

Hydraulic Jet Cleaning

A hydraulic high pressure jet cleaning installation for high speed processing of hard to clean shipping barrels is now available from Sellers Injector Corp., Philadelphia. The "Booster Jet Cleaner" ejects under high pressure a jet stream of hot detergent-in-water solution. Using plant steam at 15 psi (may range from five to 50 psi) and cold tap water the unit develops a nozzle discharge pressure of about 125 psi and water temperatures of around 200°F. Steam and water are controlled by hand valves. Detergent concentration is adjusted by a needle valve. For maximum cleansing action jet stream may contain up to 25 per cent detergent.

A 3/4 inch "Neoprene" delivery hose, one inch pipes to steam and water lines, and a vertical pipe which syphons detergent from a 55-gallon storage drum are connected to a wall-mounted assembly.

Steam and water are mixed in a venturi chamber to produce a stream velocity of almost two miles a minute and a correspondingly high scrubbing action. whatever your formulation need—there is a

GEIGY INSECTICIDE

to help you get

- KNOCKDOWN
- POSITIVE KILL
- SAFETY
- LONG RESIDUAL ACTION
 - BROAD SPECTRUM CONTROL

DIAZINON® 20S

Oil solution containing 1.5 lbs. of Diazinon per gallon. For formulation of 0.5% residual household sprays, including low pressure aerosols. Controls cockroaches and other household insects, including resistant strains. Effective, long residual action. Available in 5 and 30 gallon drums.

METHOXYCHLOR "90"

Contains 90% technical methoxychlor for the preparation of household sprays and aerosols, livestock sprays, and other products requiring methoxychlor in the finished solution. Reliable, safe, economical, broad spectrum action. Available in 100 pound drums.

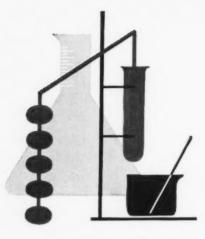
ORIGINATORS OF



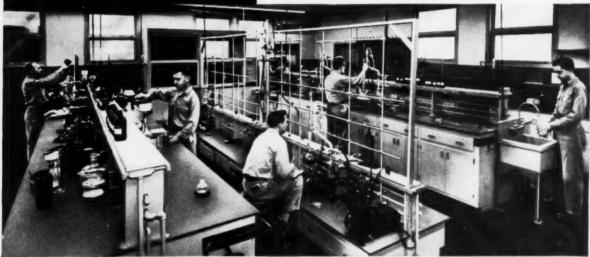
DOT INSECTICIDES

GEIGY AGRICULTURAL CHEMICALS . Division of Geigy Chemical Corporation . Saw Mill River Road, Ardsley, N.Y.





Research Headquarters



Where the world's finest natural shellacs are "custom-tailored" to industry's special requirements

Good shellac only begins with the top-grade seed lac that Mantrose imports. For users today require "individualized" shellacs, modified to fit exacting processing or finishing conditions.

That is why America's leading shellac users call on Mantrose research facilities to "design" new shellacs . . . to build additional advantages and controlled, predictable processing characteristics into the natural product . . . to enhance still further the unduplicated superiority of genuine shellac.

Chemists and consultants from the Mantrose Laboratories will be glad to discuss how a standard Mantrose shellac, or a "new" shellac, can better suit your processing requirements. There is no charge for this service.



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Packaging...

AEROSOLS · LIQUIDS · PASTES · POWDERS

New "Esquire Spray Shine," a pressure packaged polish for shoes of every color, was announced recently by Knomark. Inc., Brooklyn. Six ounce can retails for \$1.00. Product is filled by Aerosol Techniques, Inc., Bridgeport: valves are by Precision and both Continental and American cans are used. Sterling Cap Co. supplies the metal overcap.

Automotive Chemicals Cleaners Detergents Deodorants Disinfectants Floor Products Insecticides Laundry Bleach Metal Cleaners Moth Products Polishes Shampoos Shave Products Soaps Liquid Starch Toiletries and other Chemical Specialties

A market for over 28 billion packages annually





"Out, damned spot!"

Spra-tainer spot removers do the job

Harried housewives have been quoting Lady Macbeth for ages. Now Crown aerosol containers help solve the problem. Spray and foam spot removers do the job neatly, quickly, conveniently—and, above all, profitably for the manufacturer. Crown aerosol cans are building greater profits and new markets for many alert manufacturers. Are you among them? Your inquiry will be answered promptly.





CROWN CORK & SEAL COMPANY, INC., 9300 Ashton Road, Philadelphia 36, Penna.

PACKAGING NOTES

Plax Shifts Schillaci

Appointment of Samuel F. Schillaci as vice-president in charge of marketing for Plax Corp., Hart-



Samuel F. Schillaci

ford, Conn., was announced last month by Robert F. Elder, president. Previously Mr. Schillaci had been vice-president, administration. He joined Plax in April, 1954, as production manager, and subsequently became assistant to the president. In August, 1958, he was elected a vice-president of the corporation by the board of directors.

Before joining Plax, Mr. Schillaci spent 25 years in the packaging field, having been associated with Owens-Illinois Glass Co., Toledo.

New Brockway Plant

Plans for the building of a multi-million dollar glass container manufacturing plant near Minneapolis-St. Paul, Minn., were announced Oct. 7 by Brockway Glass Co., Brockway, Pa. In a joint statement by G. A. Mengle, chairman, and F. B. Hess, president, Brockway revealed that ground for the new plant will be broken in the early spring of 1960. The plant is expected to be in production early in the fall of next year.

The new Brockway plant,

to be located in Dakota County about seven miles south of the Twin Cities, will be of steel and concrete construction. The building will be of modern design and will be used for the production of both flint and amber glass containers for all of Brockway's divisions.

Other Brockway plants are located in Brockway and Crenshaw, Pa.; Freehold, N. J.; Lapel, Ind.; and Muskogee, Okla. In addition, Brockway has two whollyowned subsidiaries: Demuth Glass Works in Parkersburg, W. Va., and Tygart Valley Glass Co., Washington, Pa.

According to Brockway's chairman, G. A. Mengle, the firm's annual sales are "over \$50 million a year."

New A-H Detroit Office

The removal of its Detroit package division display and sales office from 812 Michigan Building to new, larger and more modern quarters at 17500 W. Eight Mile Road, Detroit 35, was announced recently by Anchor Hocking Glass Corp., Lancaster, O. A display of representative lines of glass containers and metal and molded closures made by Anchor are maintained at the new office. D. W. Sankey, Detroit sales manager, is in charge of the office, assisted by

C. L. Hogan and S. E. Turner. New telephone numbers are Kenwood 7-7730 and Elgin 6-8500.

Aids March of Dimes

Thomas C. Fogarty, president of Continental Can Co., New York, was appointed recently as cochairman of the 1960 New York March of Dimes. As co-chairman, Mr. Fogarty will assist in the coor-



Thomas C. Fogarty

dination of campaign activities and help to enlist the support of industry, labor, professional and civic leaders. The March of Dimes is aiding the fight against birth defects and arthritis while continuing to help eliminate polio.

A native of Rockland, Mass., Mr. Fogarty joined the sales department of Continental in 1929. He was appointed sales manager of the eastern division in 1944. Two years later he was elected sales vice-president, and in 1950 became executive vice-president of metal operations. He was elected a director in 1951, and president of the company in 1956.



your product belongs



in glass by Brockway

Just as a boy and his Dad go hand in hand, so do consumer acceptance and products packaged in glass. • Your product can win this coveted consumer acceptance when presented in an attractive glass container by Brockway. • Products packaged in glass have proven themselves to be the products most readily accepted on sight by the consumer. Seeing is believing . . . and when they see your product displayed in a glass container, consumer acceptance is assured. • A product that is worthy of consumer acceptance deserves a quality glass container by Brockway.



Tygart Valley Glass Co., Washington, Pa.

Sees Glass Bottle Rise

J. P. Levis, chairman of Owens-Illinois Glass Co., Toledo, O., predicted last month that shipments of glass containers will reach a new high of 21.6 billion units this year and that shipments would be more than double by 1975. Mr. Levis spoke at the dedication of a new O-I corrugated box plant in Chicago which will have a capacity of 65 million square feet per month. He pointed out that glass containers are one of the major items shipped in corrugated boxes.

New Colton Machine

A newly designed banding machine for sealing capsules will be featured in the exhibit of Arthur Colton Co., Detroit, at the 27th Exposition of Chemical Industries scheduled for the New York Coliseum, Nov. 30-Dec. 4. Designated Colton Model 960, the machine is said permanently to seal size "0" hard capsules by applying a 18 inch wide band of clear or colored gelatin at production rates up to 300 capsules per minute. Other equipment to be displayed at the Exposition includes: a variable speed coating stand; a double-rotary tablet press equipped with an induced-die feeder; a single rotary tablet press

New "Flip Cap" polyethylene noz-zle with a permanently attached cap was announc-ed last month by Continental Can Co., New York. New cap is designed to increase filling and closing speeds of round and oblong nozzle type cans. Unlike present "F" style can which is fitted with threaded nozzle through which packer fills product, cans with "Flip-Cap" are delivered with per-forated top. The opening, being considerably larg-er than the final nozzle opening. permits faster fill-

with an induced-die feeder; and a tablet duster. The Colton exhibit will be in Booth No. 50.

CMI Wins Safety Award

Can Manufacturers Institute, Washington, D. C., recently received the 1959 Association Safety Award of the National Safety Council for the sixth straight year. The award was presented on the basis of accident prevention in the industry as well as for its safety programs. During 1958 there were 45 fewer injuries than the previous year and rate of injuries per man hours of work decreased by 12 per cent.

D. H. Brewer Rexall VP

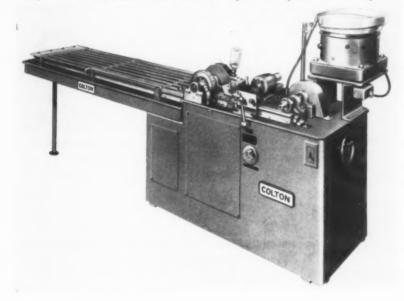
Donald H. Brewer, formerly senior vice-president of Container Corp. of America, Chicago, has been elected vice-president of Rexall Drug and Chemical Co., Los Angeles, it was announced recently by Justin Dart, Rexall president. With Container Corp. of America since 1934, Mr. Brewer was senior vice-president for seven years prior to his resignation a short time ago.

Injection Molding Co., Kansas City, Mo., manufacturers of plastic bottles and containers, is one of several Rexall subsidiaries and divisions which will report to Mr. Brewer. He is a director and executive committee member of the National Paper Box Association and the Fibre Box Association.

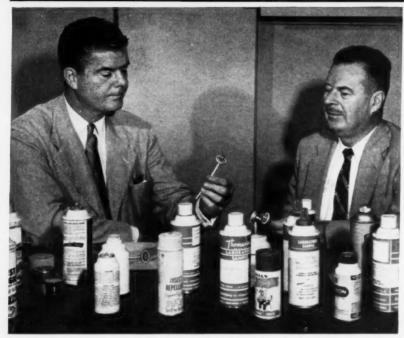
New Case Sealer

A new case sealing machine called the "Packomatic Omnimatic-Rotopress" and said to adjust automatically to a wide range of case dimensions fed in random order, was recently introduced by J. L. Ferguson Co., Joliet, Ill. Fully automatic and requiring no

Newly designed banding machine of Arthur Colton Co., Detroit, for sealing capsules. Designated Colton model 960, unit is said to seal permanently size "O" hard capsules.



The contract packager had the answer...a success story from the ISOTRON file



STYMIED by unfamiliar problems in connection with marketing his line of products in aerosol packages, the marketer finds the technical assistance he needs in the office of James Bampton (left above), president of Thomasson of Pennsylvania, Inc., of Norristown, Pa., one of the nation's leading aerosol contract packagers.



In this laboratory at Thomasson, technologists work out formula adjustments in the marketer's product to adapt it for aerosol packaging.



The marketer and the production manager watch the first run of the new aerosol-packaged product on one of Thomasson's high-speed loading lines.

man with the <u>right</u> answers for profitable aerosol packaging

No one knows for certain what the next aerosol-packaged sales success will be. But you can be sure that the highly specialized skills of an aerosol contract packager will have a useful hand in helping move the product to market. The packager supplies invaluable advice on product formulation, can and valve selection, and propellent choice. It is a fact that leading packagers rely on Pennsalt Isotron* propellents to help their customers cash in on the aerosol market.

ISOTRON-The Key to Modern Living



Pay-off of Thomasson's special knowledge comes for the marketer's product at store displays like this. Aerosol packaging brings new volume and profits.



Isotron Department 237

PENNSALT CHEMICALS CORPORATION

Three Penn Center, Philadelphia 2, Pa.



"Knox gives us on-time delivery, quality glass," says Vice President of leading detergent firm

"Our total sales have increased more than 35,000% in the past five years," says the Vice President of one of the nation's foremost manufacturer's of all-purpose liquid detergents.*

"In addition to a fine new product and a good advertising program, cooperative and able suppliers—like Knox Glass—have played an important part in our success.

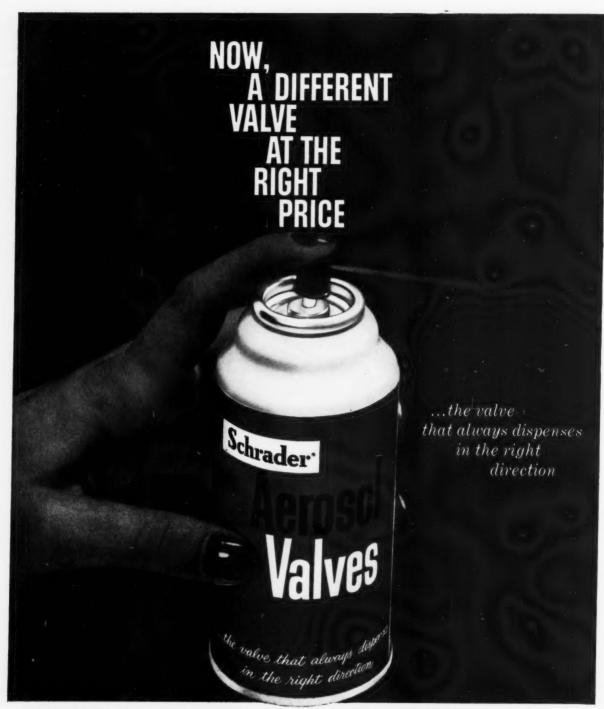
"Fifteen years ago, when we first started doing business with Knox, we used very little glass. Today, with our Name available on request.

capacity at 60,000 cases a day, Knox is still our major glass container supplier.

"We use Knox because they have always given us a top quality product and because they consistently deliver both pint and quart bottles on time—at the plant when we need them."

Find out how Knox quality and delivery can add value to your packaging operation. Contact Knox Glass, Inc., Knox, Pennsylvania.

the new/knox glass



FROM A DEPENDABLE SOURCE OF SUPPLY

Visit Our "Hospitality Suite" at the CSMA 46th Annual Meeting December 7-10 Mayflower Hotel, Washington, D. C.



Aerosol

A. SCHRADER'S SON
Division of Scovill Manufacturing Company, Inc.
470 Yanderbilt Ave., Brooklyn 38, N.Y.

operator, the machine glues, seals, and discharges shipping containers regardless of size and eliminates the need for storage conveyors and adjusting devices, according to Ferguson. Complete information on the machine is contained in an eight-page brochure available from Ferguson .

American Can Income Off

Net income of American Can Co., New York, for the third quarter of this year was slightly lower than the 1958 level despite an 11.3 per cent increase in sales. For the three months period earnings were \$18,653,458, or \$1.14 per common share, compared with \$19, 107,964, or \$1.17 per share, last vear. Sales increased from \$325,-947,808 last year to \$362,744,564. In the first nine months of 1959 earnings were \$40,143,001, or \$2.12 a share, compared with \$37,300,-262, or \$2.24 a share, last year. Sales were \$873,238,768, an increase of 9.8 per cent over \$795,-495,430 a year earlier.

New Kiwi Printer

A new power driven machine for printing roll stock such as pressure-sensitive tape, "Kraft" gummed tape and pressure-sensitive labels on paper backing was announced recently by Kiwi Coders Corp., 4027 N. Kedzie Ave., Chicago 18. Designated model #T95, the unit can be used for code dating, printing names, shift, net weight, or other information required for identity. The machine prints and rewinds at speeds of up to 1000 imprints per minute.

New Kiwi power-driven machine for printing pressure-sensitive tape and labels.





Fenton J. Dowling, above, whose appointment as manager of the marketing division of the Canco sales department of American Can Co., New York, was announced last month by Robert C. Stolk, Canco vice president in charge of sales, was formerly assistant manager of the division. In his new post he succeeds Edward K. Walsh, who has been appointed an assistant to the vice-president of the division's sales department.

At one time general sales manager of American Can, Mr. Walsh most recently has been manager of the product marketing division. He succeeds Daniel T. McFadden, who becomes assistant to the manager of the field sales division.

David G. Bernard is general manager of sales for the Canco division. Robert C. Hollister, formerly in charge of sales of aerosol cans, is now product manager of composite and fibre containers. Charles S. Stephens is now product manager of non-food containers, which includes cans for aerosols and liquid detergents.

PMMI Show in New York

Approximately 20,000 visitors are expected to attend the 1959 Packaging Machinery Manufacturers Institute Show, being held at the Coliseum in New York, according to Russell Sears, Institute executive director. More than 150 machinery manufacturers and service firms have leased all available space for the show which will cover 63,000 square feet on two complete floors in the exhibit hall.

Booths will be open from 10 a.m. to 6 p.m. on Nov. 17 and 19; from 10 a.m. to 9 p.m. on Nov. 18, and from 9 a.m. to 1 p.m. on Nov. 20. In an effort to limit attendance to the trade, a registration fee of \$2 will be charged which will be good for admission all four days. Among the types of equipment to be shown are labeling and wrapping machines, filling

machines, sealing and imprinting machines, carton formers, counting equipment, bottle cleaners, and electronically controlled packaging machines.

PMMI is a national trade association with 75 member companies who manufacture and market all types packaging machinery.

Another packaging event, scheduled at the Statler Hilton Hotel in New York Nov. 16-18, is the 21st annual National Packaging Forum sponsored by Packaging Institute, Inc., New York. Theme for this year's forum is "Industry's Launching Site for Projecting Packaging Progress."

New Capping Machine

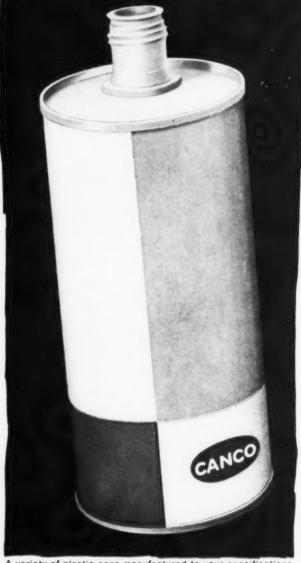
An air operated capping and lidding machine called the "Whirlwind" was introduced recently by Scientific Filter Co., 57 Rose St., New York 38. Originally designed as a screw capper, the bench-type machine is reported to seal plastic spray and dispensing plugs into polyethylene squeeze bottles; apply single or double friction lids on metal and fibre cans; seal plugs of all types on Fstyle cans; and perform the screw capping operation. The machine can operate at speeds of up to 40 sealed containers per minute. In operation the attendant places cap or lid loosely on the container and inserts it into the "V" shaped guide; then he steps on an air operated foot valve which causes the capping head to lower and make the required seal.

New "Whirlwind" air operated capping and lidding machine by Scientific Filter.



SNON-DRIP CAN

HERE'S THE
PACKAGE
WITH PROVEN
APPEAL TO
CONSUMERS...



A variety of plastic caps manufactured to your specifications

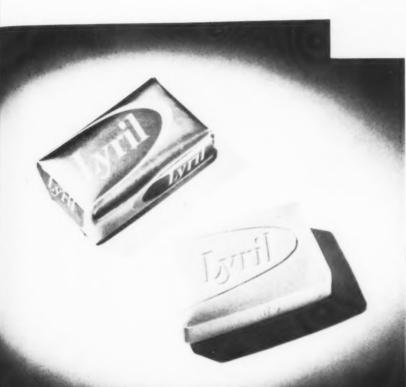
The sensational can for almost any liquid product . . . perfect for the new heavy-duty detergents! • In food stores, paint stores, filling stations, everywhere—you'll see Canco's Non-Drip Can. It's boosting sales for dozens of products and it can do the same for your liquid specialty! • Consider the features of this outstanding package: A clinched nozzle that pours freely, yet won't drip a drop when righted. Full decoration on top, on sides. Easy to fill, compact, lightweight, handy, unbreakable. In short, everything you, your dealers and your customers want in a modern container! • Ask your Canco representative today for details about this sales-making can and how it can serve your product!

AMERICAN

SOAP and CHEMICAL SPECIALTIES

CAN COMPANY

What's New?



Believed to be the first detergent bar introduced in the British market is Unilever's "Lyril," sales of which are being handled by Hudson & Knight, Ltd., Unilever marketing company. Aqua-blue bar, combining soap and a synthetic detergent, the product comes in a gold foil wrapper. Name appears in reverse white lettering on solid purple background on six sides of the wrapper. Prior to being sold nationally, throughout Britain, "Lyril" was test marketed in Bedford, Sunderland and Exeter. Three and one half ounce bar sells for approximately 18 cents.



VELVETEEN

TEEN-AGERS

"Velvet-Jell" auto polish of Westley Industries, Inc., Cleveland, is designed especially for new automobile finishes. A cream, with a high silicone content, the product is formulated as a single application, cleaner-polish. Packaged in a 14-cunce can, "Velvet Jell" retails for \$3.00. Silicones are supplied by Union Carbide Corp., New York. Westley, established in 1947, now does a multi-million dollar annual business on products sold coast-to-coast.



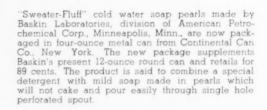


"Lestare" dry bleach has just been introduced by Adell Chemical Co., Holyoke, Mass. Packets of bleach are made of a water-soluble film which is said to incorporate a soil-suspending agent to aid in cleaning. The bleach powder is reported to be odorless and contains no chlorine. Ten packets are packed into the red, white and blue carton which retails for 49 cents. Novel dispensing package features bottom opening.





A new non-ionic detergent for floors, walls, ceilings and painted surfaces is "Forward" made by S. C. Johnson & Son, Inc., Racine, Wis. Available in five, 30, and 55 gallon containers, product contains a sanitizing agent.







Procter & Gamble Co., Cincinnati, recently introduced a new bath and complexion bar called "Dawn" in the New York area. Pink with a mint odor, bar, which floats, is wrapped in gold foil. P&G says the product contains a deodorant ingredient and leaves no "bathtub ring." It has rounded edges on its length-wise surfaces. "Dawn" comes in a bath and toilet size.

A liquid wax formulated primarily for use on wood floors was recently developed by Stanley Home Products, Inc., Westfield, Mass. Sold through Stanley dealers for \$1.35, the wax can also be used on any hard-surface floor except asphalt or rubber tile. The wax requires buffing for high lustre. Metal container is supplied by American Can Co., New York.





Another product from Stanley Home Products, Inc., Westfield, Mass., is a one pound can of paste wax for wood floors, furniture, wood paneling, and outdoor furniture. Container is by American Can Co.

New "Fragrine" air refresher and sanitizer was recently introduced by C. B. Dolge Co., Westport, Conn., in an aerosol container.

Fuld Brothers, Inc., Baltimore, is producing a new concentrated dishwashing compound for industrial and institutional use called "Squick." Packaged in a 16-ounce aerosol container, the compound is dispensed through a metered valve. A "controlled economy" feature of the product is a delay of 10 to 15 seconds between each use. Formulated for hand dishwashing, "Squick" is said to produce abundant suds which eliminate the need for scrubbing, scouring, and toweling.

An aerosol insecticide called "Konk" was recently introduced by Syncro-Mist Controls, Inc., New York. The product is packaged in a 12 ounce "Spraytainer" from Crown Cork and Seal Co., Philadelphia. It features a metered valve made by Valve Corp. of America, Inc., Bridgeport, Conn. Formulation for the insecticide with a "Pyrenone" base, is by Fairfield Chemicals, Food Machinery & Chemical Corp., New York. "Konk" is filled by Aero-Chem Laboratories, Bridgeport, Conn.

A self-polishing floor finish for linoleum, tile, cork, terrazzo, and plastic sheet flooring, has been developed by Stanley Home Products, Inc., Westfield, Mass. An emulsion-type floor polish, it contains plastic polymers and plasticizers and is claimed to impart a non-slip water resistant finish. Packaged in a gold and green colored metal quart canister from American Can Co., New York, it retails for \$1.69 through Stanley dealers.

"Glim" liquid detergent made by B. T. Babbitt, Inc., New York, now carries the "Own a Bit of America" seal on its label which is redeemable for one free U. S. savings stamp. The label is colored lavender, gold, and white.

A waterless hand cleaner and protectant called "Supersil" was introduced recently by M. J. Gordon Co., Wall, Pa., in half-gallon and gallon cans with a plunger type dispenser. Product contains silicone fluids supplied by Union Carbide Corp., New York, and may be used with or without water. Formulated for industrial and commercial use, "Supersil" is also available in 55 gallon drums.

Puro Co., St. Louis, Mo., has introduced Warfarin "Mouse Diner" in a pull-string, automatic, self-feeder package. At the same time, the company announced Warfarin "Rat Diner" in an identical package. By pulling a string at the side of the can, the bottom may be removed and exposes the ready-to-use bait. For later use, bottoms can be replaced and the bait is closed for storage.

A new label for its "Dianol Paint Insecticide" was introduced recently by Dianol Division, Mills-Pearson Corp., St. Petersburg, Fla. The new label has a black background with a yellow panel and red product name. The product is packed in four ounce and one pound cans.







GET THE FACTS ABOUT THE MANY ADVANTAGES OF

G. BARR & COMPANY TWO-PLANT AEROSOL PACKAGING SERVICE



In New York—as in Chicago—you can enjoy the outstanding research, product development and precision aerosol packaging service of a G. Barr & Company local plant and also share in the many advantages of G. Barr & Company two-plant operation.

Among these advantages are the potential savings in both shipping and production costs. You also enjoy the benefits of our unsurpassed laboratory facilities, of our two-plant buying power, our time-tested quality controls and the important know-how gained over the years in the production of hundreds of millions of aerosol packages.

There are many other important pluses which *only* G. Barr & Company can offer. We would like to tell you about them, at your convenience and without obligation.

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G. BARR & COMPANY

PRIVATE LABEL AEROSOLS



WRAPAK is a modest packaging investment that pays immediate dividends to the manufacturer, the distributor and the retailer in many product lines.

Dividend to the manufacturer: WRAPAK automatic packaging machinery wraps filled containers (cans, cartons or bottles—glass, metal and plastic) of your product with WRAPAK cartons at the high speeds demanded by today's production schedules. In many applications, the WRAPAK system uses substantially less material than is used in conventional partitions and master packers.

Dividend to the distributor: WRAPAK cartons save time in handling and price marking—time and material in reshipment of less than case lots to retail customers.

Dividend to the retailer: WRAPAK makes retail stocking, price marking, and selling easier, more efficient and less costly.

Container Corporation has combined the best qualities of packaging structure, machinery and visual design into the WRAPAK system...Let this unique system help make the distribution of your product a more profitable operation—all the way. Write or call for further information.



CONTAINER CORPORATION OF AMERICA

Valley Forge Marketing Center • 5000 Flat Rock Road • Philadelphia 27, Pennsylvania
FOLDING CARTONS • SHIPPING CONTAINERS • SEFTON FIBRE CANS • PLASTIC PACKAGING

VADOR
BOTTIPLE DIVIDEND
MULTIPLE DIVIDEND
Please send me the new brochure on the WRAPAK system.

We manufacture
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The answers to aerosol valve needs are being developed and perfected daily at Precision . . .

THIS MEANS ADDITIONAL PRODUCT SALES FOR YOU!





A Precision stream spout for dispensing any product, regardless of viscousity, that will pour. Currently most toothpaste and syrup manufacturers, are using this practical and attractive unit.





This graceful spout has proven to be a profitable way of dispensing pharmaceuticals and cosmetics. Combined with Precisions metering valve, it dispenses a pre-determined amount with a touch.

• At Precision there is a continuing program of research and development, for each day brings new products to be packaged in aerosol containers. The success of aerosols, is based on functional design and attractive appearance for these two go hand in hand to improve dispensing and increase sales.

easier to keep clean. Just lift and hold under the faucet.

Perhaps your product, whether it be dispensed as a foam, a spray, a drop or a stream, should be adapted to an aerosol package. Aerosols have proven, an increase in sales because of appearance, economy and simplicity of use. Precision engineers will be most happy to talk with you.



PRECISION VALVE CORPORATION, 700 NEPPERHAN AVENUE, YONKERS, N. Y.

WANT TO
KNOW HOW
YOUR
PRESSURE
PACKAGING
JOB IS DONE AT
CONTINENTAL FILLING
CORPORATION ?

MAIL THIS TODAY

CONTINENTAL FILLING CORP. Danville, Illinois

Gentlemen: Please send me your brochure "Aerosol Packaging Unlimited."



for
the right odor for
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Our aerosol laboratory has developed a series of especially adjusted perfumes for use in pressurized products. For instance

BOUQUET FOR AEROSOL S 7747 \$7.00 lb.

A fresh fragrant lily of the valley suitable for a variety of aerosol products such as personal deodorants, hair sprays, suntan preparations, toilet waters, etc.

We will be glad to send a sample on request.

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NEW Erade Marks

THE following trade marks were published in recent issues of the Official Gazette of the U.S. Patent Office in compliance with section 12 (a) of the Trade Mark Act of 1946. Notice of opposition under section 13 may be filed within 30 days of publication in the Gazette. See rules 20.1 to 20.5. As provided by section 31 of the Act, a fee of \$25 must accompany each notice of opposition.

Halt — This for waxless polish for composition floors. Filed Mar. 30, 1959 by J. I. Holcomb Manufacturing Co., Indianapolis, Ind. Claims use since Mar. 9, 1959.

Picnic Peace—This for insecticide for outdoor use. Filed June 19, 1958 by Earl Grissmer Co., Indian-apolis, Ind. Claims use since May 21,

Thuricide — This for microbial insecticide, Filed Jan. 7, 1959 by Bioferm Corp., Wasco, Calif. Claims use since Nov. 5, 1958.

Miller - This for insecticides. herbicides, rodenticides, and fungi-cides. Filed Feb. 12, 1959 by Miller Chemical Fertilizer Corp., Baltimore. Claims use since Feb. 1, 1938.

Van Brode — This for insecticides. Filed Mar. 12, 1959 by Van Brode Milling Co., Clinton, Mass. Claims use since May 11, 1950.

Ferret — This for rodenticide. Filed Mar. 16, 1959 by Harry Luck, doing business as Ferret Laborato-ries, Oconomowoc, Wis. Claims use since Feb. 26, 1959.

Motor King - This for antifreeze solution for automobile radi-

freeze solution for automobile radi-ators. Filed Apr. 7, 1959 by Firestone Tire & Rubber Co., Akron, O. Claims use since Mar. 2, 1959.

Big T—This for liquid laundry detergent. Filed Mar. 23, 1959 by Texize Chemicals, Inc., Greenville, S. C. Claims use since Mar. 17, 1959.

Esbec—This for cleaning compounds, Filed Apr. 24, 1959 by Esbec Barrel Finishing Corp., Stamford, Conn. Claims use since May 4, 1953.

Alumi-Glo — This for metal cleaning and polishing material for aluminum articles, particularly for kitchen ware. Filed Nov. 1, 1957 by Commonwealth Products, Inc., Kalamazoo, Mich. Claims use since Sept. 6, 1957.

Gaze—This for liquid self-pol-ishing floor wax. Filed Apr. 13, 1959 by Bardahl Oil Co., doing business as Authority Laboratories, St. Louis, Mo. Claims use since Mar. 24, 1959.

abc — This for metal polish. Filed May 6, 1959 by Copper Clad Products, Inc., Newark, N. J. Claims use since Apr. 15, 1959.

Nynamite — This for insecticides. Filed Sept. 30, 1958 by Food Machinery and Chemical Corp., New York, Claims use since June 10, 1958.

CPR-This for insecticide con-centrate for the manufacture of in-

secticides. Filed Oct. 15, 1958 by Food Machinery and Chemical Corp., New York. Claims use since July 8, 1957.

York. Claims use since July 8, 1957.

Legicide—This for germicidal disinfectant. Filed Mar. 6, 1959 by Walter G. Legge Co., New York. Claims use since Feb. 16, 1959.

Event — This for dishwashing

compound for use in dishwashing ma-chines. Filed Mar. 25, 1959 by Eco-nomics Laboratory, Inc., St. Paul, Minn, Claims use since September

Metaclean — The for cleaning compounds. Filed Apr. 13, 1959 by Metasurf Corp., Detroit, Mich. Claims use since October 1952.

Silkone — This for polish for furniture and automobiles. Filed May 1959 by Allied Chemists, Inc., skegon, Mich. Claims use since Muskegon, Mi Feb. 18, 1958.

P&S — This for floor polishes and dressings. Filed May 25, 1959 by Pierce & Stevens Chemical Corp., Buffalo, N. Y. Claims use since on or about May 1, 1957.

Rinse-Aid — This for liquid composition used in rinsing eating utensils and the like. Filed Apr. 10, 1957 by Hagan Chemicals & Controls, Inc., Pittsburgh, Pa. Claims use since Aug. 24, 1954.

Weatherset — This for anti-freeze. Filed Aug. 11, 1958 by Dow Chemical Co., Midland, Mich. Claims use since June 30, 1958.

Country Manor—This for anti-freeze. Filed Aug. 11, 1958 by Dow Chemical Co., Midland, Mich. Claims use since June 30, 1958.

Makes Indoor Air Fresh as All Makes Indoor Air Fresh as All Outdoors—This for household deodor-ants. Filed Jan. 19, 1959 by S. C. Johnson & Son, Inc., Racine, Wis. Claims use since August 1956. Aeromagic—This for aerosol packaged starch. Filed May 15, 1959 by General Aerosols, Inc., Bridgeport, Conn. Claims use since Sept. 24, 1958.

Sur-Clene - This for leather and plastic cleaner for cleaning leather and plastic upholstery. Filed Jan. 27, 1958 by Saul Moses, doing business as Dentocide Chemical Co., Baltimore. Claims use since Aug. 30,

Giant—This for synthetic detergents. Filed Aug. 22, 1958 by Armour and Co., Chicago. Claims use

since Sept. 30, 1950.

Hattie Carnegie — This for soaps. Filed Oct. 20, 1958 by Hattie Carnegie, Inc., New York. Claims use since Jan. 1, 1919.

Keglon—This for cleaner and wax remover. Filed Dec. 18, 1958 by Pierce & Stevens Chemical Corp., Buffalo, N. Y. Claims use since on or about Oct. 31, 1958.

Blendex—This for dishwashing compounds. Filed Dec. 30, 1958 by Scott Detergents, Philadelphia. Claims use since on or about Nov. 3, 1948.

Purgo-This for dairy cleaner and cleanser for general purposes. Filed Feb. 13, 1959 by Minnesota Chemical Co., St. Paul, Minn. Claims use since Aug. 25, 1938.

Chlorofom—This for dishwash—

ing compound. Filed Feb. 20, 1959 by

Fitzpatrick Bros., Inc., Chicago. Claims use since May 6, 1958. Dial—This for bath and toilet soap. Filed Mar. 30, 1959 by Armour and Co., Chicago. Claims use since Nov. 10, 1947.

Nov. 10, 1947.
Galaxy — This for all purpose cleaner. Filed Apr. 3, 1959 by Industrial Soap Co., St. Louis, Mo. Claims use since Feb. 9, 1959.

New Firms Incorporated

Eight companies in the soap and chemical specialties industry were recently granted charters of incorporation in New York state. They are:

Alden and Leeds, Inc., 390 Butler St., Brooklyn, soaps, detergents, and chemicals. Capital stock: 100 shares no par value. Directors: Lillian Gordon, Leonira Resnick, and Sylvia Gross,

G&G Exterminating Corp., Inc., 19 Hoover Rd., Yonkers, distinfectants and exterminants, Capital stock: \$1,500. Directors: Jack Gdarasci, Joseph Guarasci, and Josephine Maturi.
Go-Clean Products, Inc., 740

Stowe Ave., Baldwin, soaps and detergents. Capital stock: 200 shares no par value. Directors: Lawrence Sokoloff,

David Quient, and Lillian L. Quient. W. R. Johnson & Son Marketing, Inc., 1435 Rand Bldg., Buffalo, soaps and detergents. Capital stock: 200 shares no par value. Directors: Edward H. Kavinoky, Donald F. Smith, and Arnold B. Gardner

Louangel Corp., 65 Clymer St., Brooklyn, waxes and detergents. Capital stock: 100 shares no par value. Directors: Arnold E. Schnapp, Frances Schnapp, and Marvin Schnapp.

Sapolio Soap Co., Inc., 626 West 30th St., New York, soap. Capital stock: \$1,000. Directors: Harry P. Albert, Kenneth Kaplan, and Etta Kay.

Stainaway Corp., in care of Milton Horowitz, 152 West 42nd St., New York, chemicals and cleaning compounds. Capital stock: 100 shares no par value. Directors: Milton Horowitz, Albert Brandt, and Pearl Hillman.

United States Soap and Chemical Corp., in care of A. I. Madison, 186 Joralemon St., Brooklyn, soaps and detergents. Capital stock: 150 shares no par value. Directors: Joseph L. Abramson, Leon M. Roberts, and Harry Mar-

Lever Advances Bales

William R. Bales was recently advanced to sales manager of the Denver, Colo., district of Lever Brothers Co., New York. With the company for the past six years, he was formerly field manager in the San Francisco district. The Denver district includes Colorado, New Mexico, Montana, Wyoming, and parts of Texas and Nebraska.



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- Plant Food, Household
- Poison Ivy, Oak and Sumac Remedy
- Pre-Shave Lotion Run Stopper
- Shaving Cream (non-separating)
- Shoe Polish, White
- Shoe Polish and Sprays

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- ☑ Window Cleaner
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 ☐ Cosmetic Aerosol Products (including shaving creams, skin lotions and creams, antiperspirants and personal deodorants, suntan preparations, powders, perfumes and colognes, nail preparations, etc.)
- Household Aerosol Products (including room de-odorants, oven cleaner, glass cleaner, disinfec-tant, mildew proofer, wax polish, water regel-lant, etc.)

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PRESSURE PACKAGING

Hemmingstad to McKernan

Roy Hemmingstad was recently appointed a sales representative for E. J. McKernan Co., Elgin,



Roy Hemmingstad

Ill., for its line of "Scaquist Scaspray" aerosol valves. In his new post he represents the company in the eastern states and makes his headquarters at the firm's office at 120 Liberty St., New York 5. Associated with the aerosol packaging industry for the past ten years Mr. Hemmingstad has sold plastic and metal closures for West Penn Manufacturing and Supply Corp., Brackenridge, Pa.; Sterling Seal Co., Erie, Pa.; and Ross Container & Seal Co., New York.

Mojonnier Name Dropped

Kartridg-Pak Machine Co., Davenport, Ia., and its Mojonnier Associates Division, Franklin Park, Ill., are now both known as Kartridg Pak Co., it was announced last month by Harold M. Mayer, president. The name Mojonnier is no longer used. Mojonnier Associates, manufacturer of aerosol packaging machinery, became a division of Kartridg-Pak in October 1958 with the sale of assets by Mojonnier-Dawson and Mojonnier Associates, Inc. Kartridg-Pak is a

subsidiary of Oscar Mayer & Co., manufacturer of meat and food packaging machinery.

Aero-Chem Changes Name

Aero - Chem Laboratories, Inc., Bridgeport, Conn., aerosol loaders, has changed its name to Aero-Chem Fillers, Inc. The firm, which is located at 1981 State, Street Extension, Bridgeport, was founded in October, 1958. Charles O. Rader is president; Andrew J. Zelle, vice-president, and John Sullivan, treasurer and assistant to to the president.

Adopt VCA Lock Device

A cam locking device which locks the actuator to prevent the accidental release of the product has been incorporated into a purse size aerosol container for "Evening in Paris" spray perfume by Bourjois of New York and Paris. The device was recently designed by Valve Corp. of America. Inc., Bridgeport, Conn. (see Soap and Chemical Specialties, June 1959, p. 133) and its adoption by Bourjois marks its first commercial application.

The stainless steel aerosol container is made by Risdon Manufacturing Co., Naugatuck, Conn., and holds a half ounce of perfume with a metered valve for 400 sprays.



Besides the "Cam-Lock" locking device, VCA makes the "Mist-Top" actuator cap and the metered valve. The carton displaying the dispenser was designed and produced by Container Corp. of America.

ATI Plant Manager

The appointment of Earle L. Taylor as plant manager of Aerosol Techniques, Inc., Bridge-



Earle L. Taylor

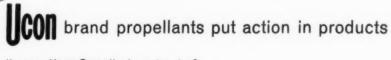
port, Conn., contract aerosol loader, was announced Oct. 12 by H. R. Shepherd, president. Formerly assistant plant manager, Mr. Taylor now is in charge of all processing and maintenance at ATI. He has been with ATI since its founding and had a key role in the installation of the firm's aerosol filling lines. He has also figured in the development of such mechanical processes as shave cream gassing and the adapting of conveyors to aerosols.

Before joining Aerosol Techniques, Mr. Taylor was with Connecticut Chemical Research Corp., Bridgeport, where he was maintenance supervisor. Earlier he had been with Island Equipment Co. and Conveyor Specialty Co.

de Elzora Named Director

John de Elzora, president of Old Empire, Inc., Newark, N. J., contract and private label aerosol packagers, was recently elected a director of Davega Stores Corp., New York.







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Pace Installs Tank Farm

Pace, Inc., Wilmington, Del., contract aerosol loader, installed a 7,800 gallon solvent storage tank last month as the first unit of its new bulk storage tank farm. Further installations will include a propellant storage tank to supplement smaller storage units currently in use. The installations are part of the company's expansion program accompanied by internal plant improvements which will include an explosion-proof filling room.

Goldberg Visits Europe

Stanley Goldberg, head of Aerosol Research Co., Forest Park, III., valve manufacturer, returned Oct. 20 from a five week trip to Europe. While abroad he visited licensees of Aerosol Research Co.: Societe Française de Recherches Aerosol, Creteil, France; Deutsche Aerosol Ventil GmbH, Nurnberg, Germany, and Aerosol Research Bournemouth, England. Mr. Goldberg discussed with his licensees the establishment of sales policies and acquainted them with the latest production ideas on ARC aerosol valves. A great deal of progress in the development of aerosols in Europe was reported by Mr. Goldberg. He also indicated that the market for pressure packaged products abroad is expanding steadily.

Machine Makes CO., Pellets

A new machine called the "Snow-Man" for making carbon dioxide pellets for experimental use as aerosol propellants was introduced recently by Builders Sheet Metal Works, Inc., 108-110 Wooster St., New York 12. An adapter is





Installing 7.800 gallon solvent storage tank at aerosol loading plant of Pace, Inc., Wilmington, Del. This is first unit of new bulk storage tank farm.

available with the unit for making pellets one half inch in diameter by five-eighths of an inch in length. Two of these pellets will create a pressure of approximately 80 psi in an empty six ounce can, according to the company. The "Snow-Man" may also be used to produce dry ice for use in acrosol cold filling.

ATI Names Taylor

The appointment of Earle L. Taylor as plant manager of Aerosol Techniques, Inc., Bridgeport, Conn., was announced recently by H. R. Shepherd, president. Previously assistant plant manager, Mr. Taylor is now in charge of all processing and maintenance of the firm's main manufacturing center. Before joining ATI he was with Connecticut Chemical Research Corp., Bridgeport.

Adopts New Name

Uni-Wax Aerosol & Chemical Corp. is the new name adopted last month by Universal Spray Can Corp., 80 Washington St., New York 6, N. Y. The new name has been adopted to "reflect the broader scope of our activities," an announcement of the name change stated. The firm, which markets "Speed Shine" pressure packaged shoe polish, is working on new products in the household and industrial chemical specialties fields, according to a company spokesman.

National Spray Can Corp., founded about three years ago, is headed by Norman Jay, president; Milton Dobkin, vice-president; E. Richard Ebe, treasurer, and H. Keller, secretary. Mr. Jay had been with the Regal Chemical Corp., Brooklyn contract aerosol loader, prior to forming National Spray Can Corp.

Propellants Folder

"Ucon" brand aerosol propellants are described in a new four page folder available from Union Carbide Chemicals Co., 30 East 42nd Street, New York 17. The physical properties and uses of the four fluorinated hydrocarbons in this line are covered in tabular form.

High Fashion in Aerosols

A prediction of at least 150 different types of aerosol containers to choose from by 1965 was made recently by Douglas Atlas, vicepresident of G. Barr and Co., Chicago contract aerosol loader. Reviewing the growth of aerosol container styles from the two stock containers available 10 years ago to the approximately 75 different types and shapes on the market today, Mr. Barr observed that the aerosols are moving into an age of high fashion among "the ranks of the best-dressed packages." He also noted how container researchers have made improvements in package design and materials as aerosol chemists made advancements in "proper spray performance, corrosion prevention, long shelf life, and other elements of product efficiency."

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Cos. Chemists Hear Kanig on Aerosols

OSEPH L. Kanig, associate professor of pharmacy at Columbia University College of Pharmacy and director of its new aerosol research laboratory spoke on "Measurement of Particulate Solids in Aerosol Systems" at a meeting of the New York Chapter of the Society of Cosmetic Chemists last month.

Dr. Kanig reviewed the relationship between particle size of component materials and product

efficiency in both cosmetic and pharmaceutical products and noted that "particle size can be held directly responsible for the rate of dissolution, speed of absorption, covering ability, protective efficiency, color and elegance.'

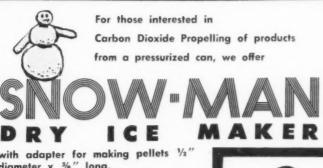
Using inhalation and topical medications as examples, he explained how control of particle size is especially important in pressurized packaging where mechanical operational efficiency and ther-

apeutic activity of the product depend upon it, he said. An obvious need exists for accurate means of measuring particle size characteristics, Dr. Kanig observed, because of the "differences of opinion regarding the optimum conditions for product stability."

He also reviewed the existing direct and indirect methods of measurement. Direct methods include sieving and microscopy. Each has its limitations, he stated.

Among the indirect methods are sedimentation, impaction, and inertial techniques, and optical methods. Instruments used in each method were described by Dr. Kanig.

At Columbia's aerosol research laboratory an instrument has been developed which "employs the combination of the light scattering and gravitational sedimentation" techniques, he reported, This instrument, Dr. Kanig concluded, is yielding "valid sampling of pressurized suspensions and will be used further to study those variables affecting the stability of particles in suspension in propellants."



with adapter for making pellets 1/2" diameter x 3/8" long.

Two of these pellets in an empty 6 oz. can will create a pressure of approximately 80 lbs. Two of these pellets in a similar can half filled with water will create the pressure due to the water absorbing some of the CO2. For experimental work with CO2, the SNOW-MAN is a most valuable aid.

The SNOW-MAN may also be used to produce dry ice with Acrosol cold filling. The dry ice is used in conjunction with coils of copper tube cooling the aerosol propellants well below their bolling point so they can be handled in open containers.

PRICES

\$86.-3 oz. Size * 12 oz. Size-\$130.-20.—Pellet Making Attachment 20.—

\$150. S106. ... TOTAL

BUILDERS



Kartridg Pak Names Allen

Carl F. Allen was recently appointed sales and service engineer in the south central United States for Kartridg Pak Co., Franklin Park, Ill. He covers the nine state area in that region. With the company for the past three years in its factory sales department, Mr. Allen now handles Kartridg Pak's aerosol packaging lines and other packaging equipment.



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Production SECTION

Valves in the Soap Plant

N soap manufacture as in other chemical processing industries selection of valves is an important factor worthy of serious consideration. The type of valve selected for a specific operation can directly affect production efficiency, labor cost, product quality and in some cases, safety conditions. The purpose of this article is to provide information about a class of valve that is finding growing acceptance in the soap plant — the lubricated plug valve.

Plug Valve Design

In valves intended for use in soap production certain design characteristics are a must. Most Plug valves with lubricant providing seal are versatile, long wearing, easy to maintain, and leak proof, manufacturer claims

By Paul Manor

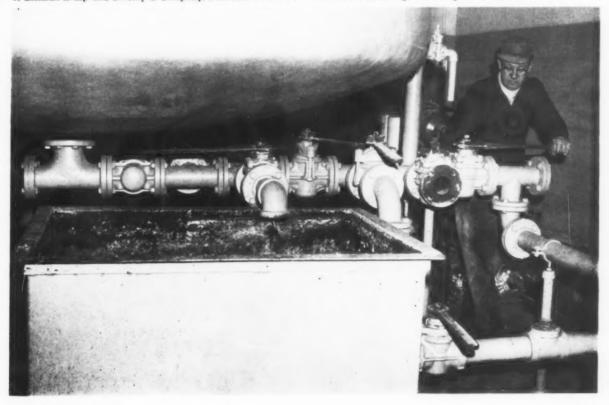
Rockwell Manufacturing Co. Pittsburgh, Pa.

important of these is positive shutoff. Leakage on lines carrying fuel, caustic, lye or glycerine can be extremely dangerous. The lubricated plug valve is a "block" or complete shut-off type, although it can be used to throttle. It is basically designed for use where leakproof operation is a necessity. In the lubricated plug valve, the lubricant provides the seal. The lubricant is distributed by lubricant grooves around the plug and valve body. The grooves are located so that when the valve is closed, the valve ports are completely sealed. This seal is effective even for fluids of low viscosity.

Lubricated plug valves used on bottom of soap kettle at plant

Valves, by Rockwell Nordstrom, have no projecting yokes or of Lanman-Kemp and Barclay & Company, Palisades Park, N. J.

bonnet, an advantage where space is limited.





Lubricated plug valve controls control flow from settling tanks to tank farm at Los Angeles plant of Lever Brothers Co. Valves operate easily, opening or closing fully with quarter

turn. Right: Manifold of Rockwell-Nordstrom lubricated plug valves on stock line from scale tanks to kettle room at Los Angeles plant of Lever Brothers Co.

In addition the lubricant fulfills other useful functions. It can provide packing action by being inserted under pressure against the smaller end of the plug. This means that valves which have not been operated for long periods can still be operated easily. The lubricant also reduces friction and wear.

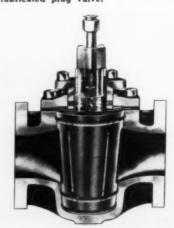
Other design characteristics of the lubricated plug valve making it desirable in soap manufacture are the absence of pockets or voids and the fact that the seat is not exposed to the line fluids. Of the three basic parts comprising the valve, i.e. plug, body and cover, the only movable member is the plug. Since the plug works by rotation only, there is no necessity to raise and lower it. This ensures that hardened soap or other foreign material will not collect on the seat and cause the valve to stick.

Another quality that the soap industry looks for in a valve is ease of operation. Workers must be able to shut off flow quickly so that formulas remain constant and material is not wasted. The lubricated plug valve opens or closes completely with just a quarter turn. A stop collar indicates clearly when the open position or the close position has been reached and so there is no "guesswork" involved.

Because they can operate

over a wide range of pressures and temperatures lubricated plug valves can be used in in-process lines carrying tallow, lye, caustics. liquid soap, glycerine, or additives as well as in service lines carrying water, oil or fuel. Thus soap manufacturers can standardize their valve requirements and thereby cut costs and simplify maintenance and inventory. For example Colgate-Palmolive's Kansas City plant uses "Rockwell-Nordstrom" lubricated plug valves on boilers as well as on crutches, kettles, dryers and bulk unloading system. Lever Brothers Co. takes a similar advantage of standardization in its Los Angeles, Calif. plant. Here lve transfer lines, tallow lines, raw soap stock lines, soap transfer lines,

Cross section of Rockwell-Nordstrom lubricated plug valve.



lines from the settling tanks to the tank farms, lines from scale tanks to kettles and incoming gas lines are fitted with lubricated plug valves

Adaptability to manifolding is another advantage of lubricated plug valves. Since they have no projecting yokes or bonnets they can be closely spaced on manifolds. This is important where space is a factor as is the case in tank bottom valves under soap kettles.

Lubricated plug valves are available in a number of multiport constructions. A single L-shaped passage connects any two ports, a T-shaped opening any one of three ports. The four-way type has two cut-outs on opposite sides which connect any two adjacent parts or four parts with a quarter turn of the valve. Three-way plug valves can often be used to replace two other valves eliminating butt ends of pipe and the consequent danger of contamination.

Long life and ease of maintenance of lubricated plug valves can be a factor in cutting down overhead. Lanman & Kemp—Barclay & Co., Palisades Park, N. J. manufacturers of "Reuters Soap" used "Rockwell-Nordstrom" lubricated valves for 30 years on caustic service. When the lines were dismantled this year, the valves showed no appreciable wear on scouring and after a minimum of

U.S.I. CHEMICAL NEWS

Nov

A Series for Chemists and Executives of the Solvents and Chemical Consuming Industries

1959

Ralph Knight Appointed U.S.I. Vice President



Ralph M. Knight, Manager of Polyolefin Planning for U.S.I., was recently appointed a Vice President. In his new position, Mr. Knight will intensify U.S.I's long-range polyolefin development program. He will continue to direct

the Polymer Service Laboratory as well as to coordinate its efforts with other plastics activities within the company.

The newly created post is a reflection of the expanding role of polyolefin plastics in U.S.I.'s long-range growth plans. U.S.I. is currently the country's third largest producer of polyethylene, which it markets under the trade name PETROTHENE's. The company has underway an extensive expansion program which is expected to make it the second largest producer of polyethylene in the world by mid-1960.

Since joining the company in 1953, Mr. Knight has served as Polyethylene Manager, Polyethylene Production Manager, Assistant to the Vice President for Production, and Manager of Polyolefin Planning.

Chlorine Data Sheet Now Available from U.S.I.

Properties, shipping information and uses for liquid chlorine are detailed in a new data sheet just issued by U.S.I. Complete references for property data are included. The material, which U.S.I. ships in 30-ton

and 55-ton tankcars from Huntsville, Alabama, is used primarily in the bleaching of

MORE

Comprehensive Study Provides Data on Corrosion Resistance of Commercial Titanium-Base Alloys

Alloys Generally Corrode More Than Commercially Pure Titanium

An intensive research program to determine the corrosion resistance of seven of the most commonly used titanium alloys has recently been completed. Results indicate that in strong acids such as sulfuric and hydrochloric, the alloys generally have less corrosion resistance than commercially pure titanium itself. One

Methionine Indicated for Schizophrenia Treatment

Russian researchers have made a preliminary study which indicates that the sulfur amino acid, methionine, has a therapeutic effect in the treatment of schizophrenics. The treatment seems to give best results in the cash, stars of the illness.

treatment seems to give best results in the early stages of the illness.

The study was made with 20 patients, eight of whom had been ill for only a short time, with the disease in an acute form. The others had been afflicted for a long period. Methionine treatment was beneficial and helped normalize conditional and absolute reflex activity. In some cases the return of normal vascular reflexes preceded clinical improvements. Blood studies showed sharp changes in the index of thymol reaction and glutamine content of the serum after methionine treatment. The researchers analyzed the urine of the patients and confirmed improved nitrogen metabolism when methionine was administered.

It was noticed that patients become more communicative after treatment. Their appetite and sleep improved, along with their ability to take care of themselves. Psychopathological symptoms leveled off. than commercially pure titanium itself. One exception—an alloy containing about 3% aluminum and 2.5% vanadium—has about the same degree of corrosion resistance as the unalloyed metal.

All seven alloys are reported to be completely resistant to solutions of ferric chloride, sodium chloride and sodium hydroxide and, with very few exceptions, to formic acidunder test conditions. Test results in aluminum chloride solutions were very erratic. However, they do indicate that under some conditions, these solutions can attack both titanium and its alloys very severely. In oxalic acid, all alloys corrode excessively.

The program revealed that polished surfaces are more corrosion resistant than pickled-finish surfaces, and that a high dissolved oxygen content in acid solutions slows corrosive action on both the metal and its alloys. The alloys tested, and their chemical analyses, are shown in table 2.

They were immersed for 336 hours in the following corrodents at 95°F. and/or 190°F.: 1, 3 and 5% hydrochloric acid, 5% sulfuric acid, 5% oxalic acid, 25% formic acid, 25% aluminum chloride, 25% ferric chloride, saturated sodium chloride and 25% sodium hydroxide. Studies were made

droxide. Studies were made without agitation of the corrosive solution, with air agita-

MORE

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			1		7	COR	ROSIG	ON RAT	ES, m	ру					
	190°F						95°F								
	NO AGITATION					AIR AGITATION				N ₂ AGITATION					
ALLOY	1% HCl	3% HCl	5% H ₂ SO ₄	5% Oxalic	For- mic	3% HCl	5% HCl	5% H ₂ SO ₄	5% Ox- alic	For- mic **		5% HCl	5% H ₂ SO ₄	5% Ox- alic	For- mic
Comm. Pure Ti- 75 BHN	0.10	142	452	-	E	0.07	*	55.6	-	E	4.9	16.1	16.4	Assessed:	E
Comm. Pure Ti-120 BHN	3.3	140	254	1158	E	0.17	*	*	38.4	E	5.2	8.2	20.0	52.0	
Comm. Pure Ti-180 BHN	0.17	196	571	705	E	0.03	*	9.96	20.7	E	5.1	10.4	17.5	32.7	E
Comm. Pure Ti-200 BHN	0.10	216	560	801	E	0.07	*	8.4	14.0	E	6.4	11.1	31.1	32.7	E
MST 8 Mn, Annealed	0.29	233	877	588	E	0.13	28.6	17.0	47.9	E	9.24	17.9	41.9	82.7	5
MST 6 A1-4V, Annealed	59.5	357	872	1582	164	1.35	31.8	44.8	41.9	E	12.4	18.7	32.4	42.8	5
MST 6 Al-4V, Age Hardened	49.4	378	850	983	164	4.05	26.6	26.9	25.7	E	7.97	16.2	29.8	61.9	1
MST 5 A1-2.5 Sn, Annealed	83.2	588	1230	1877	E	13.7	36.6	43.7	57.1	E	22.8	38.5	52.9	43.4	E
MST 821, Annealed	1.46	313	646	1418	E	0.46	14.7	37.2	54.4	E	9.85	16.6	23.7	62.2	E
MST 2.5 A1-16V, Solution Treated	3.4	160	591	561	50	0.49	5.2	0.65	23.8	E	5.47	9.8	21.4	20.2	E
MST 2.5 A1-16V, Age Hardened	3.7	211	660	988	50	0.23	14.2	24.0	22.6	E	9.11	17.6	38.0	20.6	E
MST 185, Annealed	37	430	888	582	E	0.06	*	*	21.8	E	12.9	19.8	43.5	19.0	E
MST 185, Age Hardened	74	450	946	1039	E	0.33			33.5	E	14.6	22.3	45.5	40.3	E
MST 3 A1-2.5V. Annealed	0.30	147	667	1028	E	0.10	0.05		23.1	E	5.01	7.43	16.4	24.8	E

* results erratic

** no tabular data except as shown.

E indicates complete resistance.

Nov.

U.S.I. CHEMICAL NEWS

1050

CONTINUED

Chlorine

pulp and paper, in the manufacture of chlorinated solvents, in making plastics, resins, automotive fluids, insecticides, herbicides, refrigerants, propellants, and in water and sewage treatment.

The data sheet can be obtained from U.S.I. sales offices or from the Chlorine and Caustic Soda Sales Department, 99 Park Avenue, New York

Have you a new product to tell the world about?

Make it routine to send your publicity releases to the Editor, U.S.I. Chemical News, often called the "Front Page of the Chemical Process Industries.

CONTINUED

Titanium Alloys

tion and with nitrogen agitation.

Actual corrosion rates in mils per year (mpy) are shown in table 1. The following ratings permit interpretation of these mil-peryear figures:

Corrosion rate, mpy Rating Excellent less than 0.5 0.5 to 5.0 Good 5.0 to 10.0 more than 10.0 Poor

The alloys rated about as follows in the tests, starting with the most highly corrosion resistant:

(2) MST 2.5A1-16V (3) MST 8A1-2Cb-1Ta (821)

(4) MST 1A1-8V-5Fe (185), MST 8 Mn, MST 6A1-4V (5) MST 5A1-2.5Sn

New Synthetic Ketone With Fresh, Leafy Odor Gives Soap Perfumer New Tool

A new synthetic aromatic ketone, related in activity to a group of trace constituents of essential oils, has recently been discovered and found to possess the soap-scenting effectiveness usually associated with natural ma-terials. Thus the new synthetic material is reported to give the perfumer a new tool for achieving lasting, strong, stable and fragrant soap perfumes with increasing independence from the essential oils.

Although the characteristic, fresh, leafy note of the ketone is not new-an almost identical note being found in petitgrain oil-the new ketone is said to offer many possibilities for original perfumes not possible with petit-grain oil itself. This because it is a concentrated note free from terpene and other ester components that would hamper its adaptability. The material is offered for use by the soap perfumer in petitgrain, bergamot, lavender, vetiver, lemon, neroli and geranium type compositions.

Tests were performed with the new ketone in soap bars and powders, and liquid and powdered detergents. In all cases, the material was reported to give a strong fragrance which lasted, unchanged as to strength and character, through accelerated aging tests.

When incorporated into soap bouquets, the ketone is reported to contribute these advantages to soap cake fragrance: cakes retained fresh note long after identical cakes without the ketone became flat and lifeless; cakes gave a more diffusive fragrance than identical cakes without the ketone; cakes containing the ketone were judged to have a more refreshing and exhilarating scent.

TECHNICAL DEVELOPMENTS

Information about manufacturers of these items may be obtained by writing U.S.I.

Glycerine properties, reactions, performance are covered in new 20-page booklet now available. Describes all commercial grades and types; includes information on storage, shipping, handling; covers variety of known uses.

Pilot scale versions of two commercial continuous centrifuges can now be obtained for clarifying, separating and concentrating in lab and pilot plant. One unit is for liquids with up to 20% solids, the other for up to 5% solids.

No. 1531

Montmorillonite catalysts, made from bentonite and aluminum hydrosilicate and used mainly in reactions otherwise catalyzed with hydrogen acids, are now marketed in U.S. Characterized by highly selective catalytic activity.

New type applicator for ether aerosol diesel starting fluid has been developed. Holds standard aerosol can and feeds fluid into intake manifold of engine through closed system. Said to give quick start without fluid waste of vapor escape. Is compact, fits any engine.

No. 1533

New guide for fire and explosion prevention in plants producing and handling zirconium can now be purchased. Pamphlet outlines safeguards for fire prevention, dust collection, fire protec-tion, and disposal of waste materials. No. 1534

Skin lotion to keep hands free from drying by solvents has been developed for use by chemists and clinicains working with acetone, methanol, ether, alcohol, xylene, benzene, chloroform, detregents, alkalis, etc.

New facepiece for gas and hose masks, air line respirators, demand breathing apparatus, is now on market. Features easily replaceable, large single lens, improved speaking diaphragm, built-in accommodation for glasses, no fogging.

Acid inhibitor has been made odorless, without changing inhibiting properties of product. Material is added in small amounts to acid pickling solutions to prevent attack of steel and copper, and reduce rust during steel drying.

No. 1537

Laboratory production and use of sodium wire are outlined in new technical data sheet. In-cludes photo, diagrams, complete description of equipment; extrusion method; typical reaction of the wire in Bouveault-Blanc reduction. No. 1538

New Product for poison ivy treatment is said to act quickly by neutralizing ivy phenols which cause rash and itch. Works on ion exchange principle to convert toxic phenolic compounds to inactive phenolates

ALLOY	% O ₂	% N ₂	% C	% H ₂	% Fe	% Al	% V	% Mn	% Cb	% Ta	% Sn
MST 8Mn MST 6Al-4V MST 5Al-2.5Sn	0.097 0.059 0.142	0.01 0.011 0.02	0.04 0.04 0.02	0.0082 0.0031 0.0032	0.13 0.20 0.19	6.27	4.21	8.2	0.05		1.99
MST 821 MST 2.5Al-16V MST 185 MST 3Al-2.5V	0.101 0.093 0.120	0.015 0.015 0.004 0.011	0.02 0.04 0.02 0.06	0.0062 0.0130 0.0084 0.0020	0.25 0.20 5.09 0.17	7.96 2.85 1.76 2.91	15.94 7.28 2.45		2.25	1.01	

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Pharmaceutical Products: DL-Methonine, N-Acetyl-DL-Methonine, Urethan USP, intermediates.

Heavy Chemicals: Anhydrous Ammonia, Ammonium Nitrate, Nitric Acid, Nitrogen Fertilizer Solutions, Phosphatic Fertilizer Solution, Sulfuric Acid, Caustic Soda, Chlorine, Metallic Sodium, Sodium Peroxide.

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30-year-old valves removed from service because certain lines were being dismantled at Lanman-Kemp & Barclay soap plant. Inspection showed no appreciable wear or scoring and valves are scheduled to be put back into operation on new lines.

cleaning and maintenance, the company was able to install them in a new facility.

Maintenance of Valves

The following maintenance tips are offered to help operators get maximum service from their lubricated plugs:

1. Plug adjustments should be moderately snug – tight enough to keep the plug from becoming unseated, but not to a degree requiring excessive force to operate the valve.

2. Lubrication should be periodic, systematic, and with the correct grade of lubricant.

3. If correct lubrication practices have been used and the valve system has been kept filled, lubricant can easily be forced between the seating surfaces by giving the lubricant screw a few turns. If the valve system has become depleted of lubricant, it must be completely refilled. Enough lubricant must be added to build up full pressure in the lubricant system. If pressure fails to build up even after an excessive quantity of lubricant has been added, the valve is in need of repair.

4. Turn the plug slightly



Rockwell-Nordstrom lubricated plug valve on transfer lines from lye basins to kettles at Lever Los Angeles plant. Positive cut-off characteristic an advantage on lines where leakage is safety hazard.

when lubricating to assist in distribution of lubricant and to determine whether the adjustment is correct. If the plug is lubricated while the adjustment is too loose, the valve may leak. Correct this by alternately tightening the adjustment and turning the plug. This will work out excess lubricant and permit the plug to be returned to its proper position in the body seat. Do not slacken gland adjustment or the cover bolts if the plug becomes stuck due to lack of lubrication. Tighten the adjustment and lubricate until plug frees.★★

Armour Products List

"Armour Aliphatic Organic Chemicals" is the title of a new 10-page folder recently issued by Armour Industrial Chemical Co., 110 North Wacker Drive, Chicago 6. The brochure tabulates long and short chain saturated fatty acids, oleic, and unsaturated fatty acids, giving each acid's specifications, chemical composition, and most typical applications.

In addition, the publication covers 150 fatty acid derivatives which include amphoteric and cationic surfactants and a wide range of amines used as intermediates for different classes of chemical specialties.

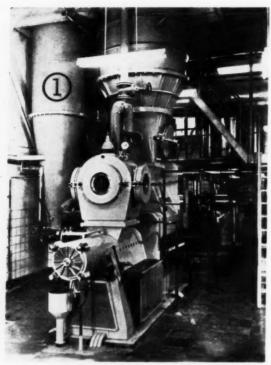
New Hooker Bulletin

"Nialk" Trichlorethylene for Vapor Degreasing and Other Uses is the title of a newly revised technical bulletin just published by Hooker Chemical Corp., Niagara Falls, N. Y. The 36-page illustrated booklet describes in detail vapor degreasing procedures. A number of other applications including dry cleaning of certain materials are also reviewed. Information on physical properties and on handling of trichlorethylene as well as other pertinent data are included.

D&O Price Catalog

The availability of its new (October, 1959) price catalog covering essential oils, aromatic chemicals, certified colors and specialties was announced recently by Dodge & Olcott, Inc., 180 Varick St., New York 14, N. Y. Published semi-annually, the 36-page booklet includes short descriptions and lists uses of various products. Addresses and telephone numbers of D & O branch offices are also listed.

G. MAZZONI, S.P.A.



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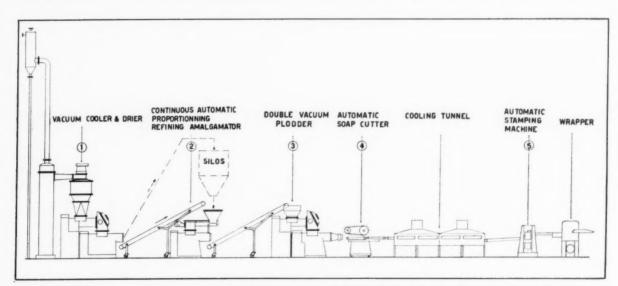
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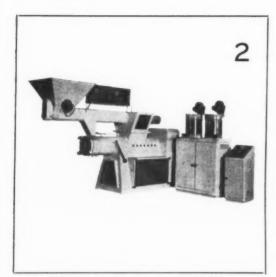
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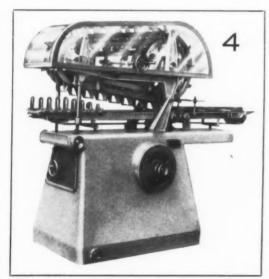
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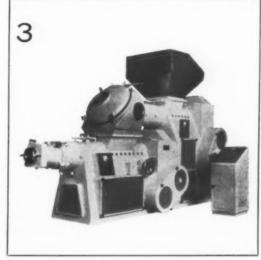
CONTINUOUS AUTOMATIC PROPORTIONING REFINING AMALGAMATOR

Units shown on this page are available individually. They



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DUPLEX — DOUBLE VACUUM PLODDER
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appear as numbered in production line diagram on facing page.



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SOAP PLANT Observer

By Willis J. Beach

Technical Service Department, Sugar Beet Products Co.

UPPLIERS to the soap industry in general are doing a fine job of technical service to their customers. But they are often a little weak in one aspect—that of supplying information on the effects of their products on the skin.

Most of the firms offer very complete physical and chemical data on their products together with much other useful information such as formulations. They are careful to mention of course, that the formulas are offered as a "first guide", or merely as "illustrative of one arrangement for compounding the ingredient in the finished product". This is probably as it should be. The product development chemist soon becomes aware of the shortcomings in the supplier's formulas.

Selling soap to the retail trade has certain advantages over the industrial market other than simply a bigger markup. For one thing, in the household market you don't have to be concerned with the plant physician, industrial hygienist or safety director peering over your shoulder wanting to know the formula of your pet cleaner or at least a complete chemical analysis of the product. The physician may relent if convinced that most chemical specialties formulations are offered but little protection from the patent office. Requirements may then be reduced to a list of ingredients with complete dermatological data substantiating their safety to the skin. Even this can be quite a bite for the small specialty firm to handle, for such firms must go to consulting specialists for the tests. For good reliable data on irritation, and particularly on



sensitization, many test subjects are needed and testing costs per product run high.

We do not condemn the occupational medical people for this. They bear the responsibility for the workers' safety. We do get a little frustrated, however, when they write: "We have used your product now for five years with no skin trouble, but we recently learned that products containing 'blankety blank' should be avoided. Does your product contain 'blankety blank'? We require a complete analysis before we can approve its further use here".

At least some of the plant doctors and most of the wellqualified dermatologists will accept, with reservations, authenticated information on test results run by the basic supplier on the ingredients of a formulation. The dermatologist is aware of the fact that, because of a variety of interactions, a finished formula may cause skin trouble even though each ingredient has received clearance. But even ingredient clearance is helpful to the doctor and may result in permission for limited use trials of the product at the plant-which, of course, is the best test of all.

Granted that dermatological clearance is useful and helpful to the compounder and to his customer, we think the chemical suppliers are not doing enough along this line. There are notable exceptions among the suppliers, and we refer to such excellent reports as that of Finnegan and Dienna on several of the Rohm & Haas surfactants. The toxicological studies on various chemicals issued by such firms as Union Carbide Chemical Co., Monsanto Chemical Co., Dow Chemical Co., and Stepan Chemical Co. have been helpful to the industry. There are many others. An interesting paper on "Toxicological Properties of Surface Active Agents," by Woodard and Calvery (Proc. Sci. Sect. T. G. A., 3, June 1945) contains a bibliography of early work on the subject.

The response from the supplier all too often follows the line of: "In over a year's work on the product none of the people in our laboratories has experienced any signs of skin irritation. However, a scientific patch test has not been undertaken and we are not planning this work. The product is a modified amide and related compounds have usually been nonsensitizing and as a class are generally considered very mild surfactants." Such a statement is understandable, and may be acceptable to us based on our experience. But the plant doctor usually wants a full report substantiated by data and a description of the testing procedure used.

Finally, in asking for dermatologic data on an ingredient from a supplier, it is important that you be specific. If you want patch test data on primary irritation at various dilutions of the product, say so. Ask also for incidence of allergic sensitization if such data has been compiled. Almost any ingredient will be a skin sensitizer to some people but the ingredient should not have more than nor-

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It takes more than a single ingredient to make a successful polish. It takes a lot of formulating skill and sound marketing decisions, too. But among all the variables, this factor remains constant: including Dow Corning Silicones in your product pays off, literally. This is true whether your polish is for glass, autos, furniture, appliances . . . silicone fluids improve the formulation — help increase sales.

Dow Corning silicone fluids make polishes easier to spread . . . quicker to shine-up . . . richer and deeper in gloss . . . longer lasting. Silicones repel water in a really superlative manner . . . resist spotting . . . withstand weathering and oxidation, too.

Taken together, these qualities mean less effort, less time and better results for the consumer. That in turn means a better product image for you... more of those all-important repeat sales. To get the maximum in consumer desire-to-buy, give Dow Corning Silicones a prominent place in your polish . . . and on your labels, too. Consumers are aware of the protection silicones provide . . . are sold on products that contain them!

Dow Corning development chemists have compiled extensive information on silicone fluids in polishes — are continually working to develop new products for new applications. For the latest and most complete information on Dow Corning Silicones for different types of polishes, contact our nearest branch office or write Dept. 2523.

Your nearest Dow Corning office is the number one source for information and technical service on silicones.



Dow Corning CORPORATION

MIDLAND, MICHIGAN

ATLANTA BOSTON CHICAGO CLEVELAND DALLAS LOS ANGELES NEW YORK WASHINGTON, D. C.

mal sensitizing properties. If data on mucous membrane sensitivity is pertinent, ask about one of the rabbit eye tests such as the Draize technique. If you are not specific in asking for the kind of dope you need, you may receive largely toxicological stuff involving acute oral toxicity with much LD₅₀ data, or inhalation data, when you only want studies on topical contact.

Hooker Issues Bulletin

'Hooker Chlorinating Agents" is the title of a revised and expanded 21-page illustrated brochure just published by Hooker Chemical Corp., P. O. Box 344, Niagara Falls, N. Y. The booklet covers elemental chlorine, hydrogen chloride, sulfuryl chloride, thionyl chloride, and the chlorides of phosphorus, sulfur, and antimony. Some of the most important aspects of their use in organic compounds are discussed as well as the type of chlorination to which each is best suited. Physical properties are tabulated and literature references included.

New Kessler Catalog

A new 40 page catalog has just become available from Kessler Chemical Co., Philadelphia 35. Entitled "Esters for Industry" the publication lists specifications, physical properties, and solubility data of fatty acid esters of butyl and propyl alcohols, ethylene glycol, diethylene glycol, propylene glycol, glycerol, and the polyethylene glycols. A separate section is devoted to technical data and another to new products.

Swift Surfactants

A new 24-page bulletin describing the "Solar" line of surfactants has just become available from the soap department of Swift & Co., Chicago 9, Ill. Ten surface active agents are included, both liquids and solids, for use in industrial and institutional washing and cleaning compounds, and as emulsifiers and wetting agents in a wide range of processing operations.

New Nozzle from Bete Fog

A new nozzle for attachment to a garden hose is said to produce an extremely fine fog for fire fight-



ing or garden care at ordinary city water pressures. It was recently developed by Bete Fog Nozzle, Inc., Greenfield, Mass. Called the "English Mist," the new nozzle has no internal parts and a single large orifice which, the company states, make it nearly impossible to clog or get out of order.

Silicone Defoamers

"G-E Silicone Antifoams" is the title of a new eight page illustrated bulletin available from the silicone products department of General Electric Co., Waterford, N. Y. Surface active agents are used in industrial processes to obtain emulsification, wetting. penetration or other benefits. These surfactants usually cause foam which must be controlled for the sake of processing efficiency and waste prevention. Inert and effective in minute quantities, silicone fluids and emulsions are most valuable as defoamers, according to G. E. The bulletin

gives pointers on the correct choice of defoaming agent, equipment and methods for various industrial operations.

Carbide Surfactants Data

"Tergitol" surfactants, their properties and uses, are described in a new 44 page brochure, just issued by Union Carbide Chemicals Co., 30 East 42nd Street, New York 17. Eight nonionic and four anionic "Tergitols" are covered. Details are given on properties, selection, solubilities, applications and performance. Formulations are suggested. In addition to detergents and household and industrial cleaning compounds, "Tergitols" find use in sanitizers, silver cleaners, wax polishes, bactericides, insecticide formulations, and a number of industrial specialties and processes.

Specifications, test methods, shipping information, and physiological properties are covered and an extensive bibliography is appended.

New Brochure from Ross

A new brochure was recently issued by Charles Ross & Son Co., 148 Classon Ave., Brooklyn 5, N. Y., describing the company's complete line of high speed, multiple action dispersers. Designated brochure number 8D, the booklet illustrates the machines in operation showing how they mix, dissolve, emulsify, deagglomerate, and disperse all types of thin or heavy paste materials and those of high viscosity. A specifications chart on various size units as well as construction details and tank sizes are also incuded in the brochure which may be obtained from the company.

Drying Ovens Booklet

A complete line of ovens for drying, baking and testing purposes on a laboratory, pilot, and production scale is described and illustrated in a catalog available from the Despatch Oven Co., 619 S. E. 8th Street, Minneapolis 14.

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Toledo, JEfferson 6-3771

Windsor, Ont., Canada, CLearwater 2-0933

NEW Patents

The data listed below are brief reveiws of recent patents. Complete copies may be obtained from the publisher of this magazine: — Mac-Nair-Dorland Co., 254 W. 31st Street. New York 1, N. Y. Remit 50¢ for each copy. For orders received from outside of the United States send \$1.00 per copy.

No. 2,900,114. Aerosol Valve Mounting, patented by Ernst J. Utz, Chicago, assignor to Aerosol Research Co. The patent describes an aerosol valve assembly comprising a tubular shell having an upstanding side wall and an outer peripheral bead on said side wall adjacent to the upper edge thereof, a valve body movable in said shell, a valve seating gasket positioned in the path of said valve body against the top of the side wall of said shell, said gasket sealing against add shell, said gasket sealing against add valve body, a ferrule having a top wall overlying and engaging said gasket, a depending circumferential side wall on said ferrule, and an inwardly extending peripheral bead on said side wall of said ferrule being interengaged with the under side of the bead on the side wall of said shell to secure the valve parts together in operative assembled relation, to provide a self-sustaining valve assembly, and to maintain said gasket against the top of said side wall of said shell.

No. 2,906,430. Spray Can and Snap On Cap Assembly and Manufacture Thereof, patented by John Henchert, River Forest, Ill., Assignor to Continental Can Co., New York. In a can structure the invention covers a round body having a side wall, a can end secured on the body by a fluid tight rolled seam including an inwardly facing upright chuck wall, said can end having an upwardly and inwardly extending domed portion merging outwardly into the chuck wall through a well rounded radius so that said domed portion, radius and chuck wall together provide an upwardly opening annular channel, and a round cap removably assembled on the can end and mounted over said domed portion and including a depending upright skirt having a tubular resilient rib at its lower extremity shaped to conform to the well rounded radius at the bottom of the channel and bottomed in said channel, a portion of said rib extending outwardly of the skirt and a portion of said rib extending inwardly of said skirt so that the skirt extends upwardly from the rib intermediately of the radial cross section of the rib.

and said chuck wall having thereon a plurality of spaced inward deformations confined to the region of the seam between said radius and the upper extremity of the seam and dimensioned to slightly overlie the rib bottomed in the channel, permitting ready snapping on and off of the cap.

No. 2,904,468. Skin Disinfectant Containing Polyoxyethylene Alkyl Phenol, Calcium Chelating Agent and Either an Organic Sulfate or Sulfonate Salt, patented by Carl Henry Davis, Coral Gables, and Constantine G. Grand, Miami, Fla., assignors to Carlen Corp., Miami. This patent discloses the process of disinfecting a skin surface which comprises contacting the surface with a dilute solution in water of an nonionic detergent of the class of polyoxyethylene alkyl phenols containing a lipophilic alkyl phenol hydrocarbon radical wherein the alkyl group contains from 6 to 12 carbon atoms, said detergent containing at least 6 oxyethylene groups per lipophilic alkyl phenol hydrocarbon radical, the lipophilic hydrocarbon and polyoxyethylene chain length being balanced to provide good detergency, a wetting agent selected from the group consisting of salts of organic sulfates and organic sulfonates and a calcium chelating agent which is an alkali metal salt of an amino acetic acid, said detergent, wetting agent and chelating agent being present respectively in the following proportions by weight on a dry basis: 70-90%; 0.5-5%; and 5-15%.

No. 2,906,265. Nasal Adaptor for Valved Dispenser, patented by Abe O. Samuels, Bridgeport, Conr., assignor to Maryland Devices, Inc. A nasal adaptor is described for a pressurized valved dispenser having a depressible valve stem comprising, a nozzle having a restricted orifice at one end, a base portion connected to said nozzle at its opposite end and adapted to sealingly engage said valve stem, said base portion extending laterally beyond said nozzle to provide a finger grip, and a detachable cover portion having openings at two ends, said cover portion surrounding said nozzle and engaging at one end said base portion and the other end extending beyond said orifice.

No. 2,905,514. Textile Cleaning Solution, patented by Joseph Nuessleir, Frankfurt am Main, Germany, assignor to Metallgesellschraft A.G., Frankfurt. Covered is a cleaning agent, particularly for the removal of oil and paint stains from textiles and articles of clothing comprising a solution of about 100 parts by weight of gasoline, 2 parts by weight of tertiary orthophosphoric acid ester made with one mol of octadecyl alcohol and two mols of octadecyl tetraglycol ether.

No. 2,900,346. Foaming Detergent Compositions, patented by Frederick M. Fowkes and Webster M.

Sawyer, Orinda, and Martin J. Schick, Berkeley, Calif., assignors to Shell Development Co., New York. Claimed under this invention is a detergent composition consisting essentially of a detergent of the group consisting of water-soluble organic secondary monosulfate and secondary monosulfonate detergents together with about 5% to about 30% by weight of said detergent of glycerol monoalkyl ether having in the alkyl group 8 to 16 carbon atoms in straight chain which is linked to the ether oxygen atom by a carbon atom not more than once removed from the end of the chain.

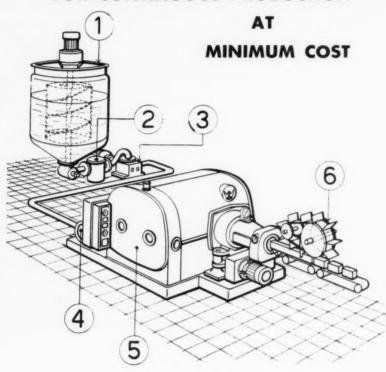
No. 2,901,433. Cleaning Composition, patented by Samuel Spring, Philadelphia, assignor to Pennsalt Chemicals Corp., Philadelphia. A cleaning composition is covered comprising by weight, from about 1% to about 50% of a soap selected from the group consisting of the alkali metal, ammonium, amine and alkanol amine salts of the fatty and rosin acids, from about 5% to about 80% water; from about 1% to about 50% of an organic acid selected from the group consisting of rosin acids, and fatty acids having from about 6% to about 26 carbon atoms; from about 6% to about 90% of an organic solvent selected from the group consisting of hydrocarbon solvents having a boiling point range between about 75° C, and about 400° C, carbon tetrachloride, perchloroethylene and trichloroethylene; and at least about 0.05% of a neutral alkali metal salt of a mineral acid selected from the group consisting of sulphuric acid, hydrochloric acid and chromic acid.

No. 2,903,431. Nontarnishing Detergent Composition Containing Stannous Salts, patented by Edgar E. Ruff, Bergenfield, and Elwin E. Smith, Paramus, N. J., assignors to Lever Brothers Co., New York. Revealed is the process of cleaning articles formed of copper and copper and nickel alloys without imparting appreciable tarnish thereto which comprises washing said articles with a detergent composition consisting essentially of an alkali metal polyphosphate which in aqueous solution having a pH of from about 7 to about 11 tarnishes copper and copper and nickel alloys and a water soluble stannous salt in an amount to lessen the tarnishing action of the polyphosphate.

No. 2,898,013. Soap Powder Measuring Dispenser, patented by Gerard J. Hebert, Waterbury, Conn. Covered is a measuring dispenser for powdered soap or other material, an attachment having a flat rectangular top section adapted to lie upon the top of a cardboard package, said attachment being open at the front and having vertical triangular sides, a rearwardly and upwardly inclined lower web extending part way toward said top section, a downwardly and rearwardly inclined upper web spaced from said lower web and joined to said top section, a central vertical top web secured to said top section to engage the corner flap bent downwardly and rearwardly from the top corner of said box, the space between said top section and said upper web serving to determine the amount of powdered

The New SAIX COOLING PLODDER

FOR CONTINUOUS PRODUCTION



The savings in floor space, labor and production time effected by the SAIX COOLING PLODDER are really impressive. The drawing illustrates the mechanical simplicity of this latest equipment for continuous soap cooling.

(1) The hot liquid soap is drawn from the storage tank through filters (2), (3) and (4), into cooling plodder (5). Here it passes into an annular chamber between a cylinder rotating within a hollow fixed cylinder, both of which are water-cooled. The cooled soap is then compressed by rotating pistons in the collecting chamber. The semi-solid plastic soap then passes to the milling unit and thence to the compression cone, from which it is finally extruded as a continuous bar. It is cut into desired sizes by the continuous automatic cutting machine (6).

Pilot plant available for test at your factory

For further information call or write-



J.M. LEHMANN COMPANY, Inc.

550 NEW YORK AVENUE, LYNDHURST, N. J.

material which will be dispensed each time the box is tilted back and forth to cause the powder to enter and leave said dispenser when it is located within the square top opening in said package.

No. 2,903,430. Oxidizing and Optical Bleach, patented by Caroline Butler, South Plainfield, N. J., assignor to American Cyanamid Co., New York. The patent claims a bleaching powder for whitening natural and synthetic protein fibrous material which comprises a bleaching mixture whose only active chemical bleaching ingredient is about 30% by weight of the mixture sodium perborate, the said bleaching mixture having admixed therein from 0.01 to 2.0% by weight of 4-methyl-7-dimethyl-aminocoumarin.

No. 2,901,434. Railroad Rolling Stock Cleaners, patented by Arthur Frank Butcosk, Fairfax County, Va. Described is the process of cleaning the surface of railroad rolling stock which comprises applying to said surface an aqueous solution containing for each gallon thereof about four ounces of a mixture consisting essentially, on a dry weight basis, of about 3-6% at least one synthetic wetting agent having surface activity at a pH of 1 and selected from non-ionic and anionic agents exclusive of soap, about .25 to 10% of a water-soluble magnesium compound selected from the group consisting of magnesium sulfate and magnesium chloride, a minor proportion up to about 3% of a water-soluble cellulose dispersing agent, a minor proportion up to about 5% of the molecularly dehydrated phosphate salt of an alkali metal, about 1-3% benzaldehyde, and the remainder sodium acid sulfate, the solution having a pH of about one.

No. 2,901,383. Process for Cleaning Objects, patented by Kurt Lebsanft and Ernest Schmidt, assignors to Wacker-Chemie G.m.b.H., Munich, Germany. This patent teaches a process for cleaning objects which comprises treating them with a chlorinated aliphatic hydrocarbon containing finely divided particles of polyvinyl chloride, and subsequently rinsing the cleaned objects in a chlorinated aliphatic hydrocarbon to remove the polyvinyl chloride particles.

No. 2,905,587. Insecticidal Compositions, patented by Robert J. Dowling, Naugatuck, Conn., assignor to United States Rubber Co., New York. This patent deals with an insecticidal composition comprising chloroalkyl aryloxyalkyl sulfite having the general formula

0 R'-0-8-X-0-R

in which R' is a chloroalkyl radical containing 2 to 4 carbon atoms and 1 to 3 chlorine atoms and having no chlorine atom attached to the alpha carbon atom, and X is an alkylene radical having 2 to 4 carbon atoms, and R is an aromatic radical, a powdered solid carrier, and sodium carboxymethylcellulose, said sodium carboxymethylcellulose being in amount from 1 to 50 parts per 100 parts of said sulfite, and said sulfite being in amount from 2 to 100 parts per 100 parts of said powdered solid carrier.



Surfynols are unique ditertiary acetylenic glycols which are nonionic, nonfoaming surface active agents. Below are five areas where Airco Surfynols are being used. Perhaps they suggest a use for you.

WETTING – Surfynols 102 and 104 are superior wetting agents. A .1% solution of Surfynol 104 in water has a Draves wetting time of 8 seconds. Even lower Draves times result when Surfynol 104 is combined with surfactants having higher Draves times. Surfynol 104's excellent wetting and defoaming properties provide a basis for using it in paints, metal cleaners, rinse-aid formulations, and insecticides.

DEFOAMING – Surfynol 104 is recommended as a defoamer for aqueous systems. This white waxy material is also available in two liquid forms: Surfynol 104E (50% active in ethylene glycol solution) and 104A (50% active in 2-ethyl hexanol). At about .2% concentration, Surfynol 104A or 104E cuts foam in such systems as emulsion paints, paper coatings, and insecticide formulations.

INVESTIGATE SURFYNOLS if lower cost surfactants have not proven satisfactory. Airco's experienced technical representatives are always ready to assist you. For on-the-spot help or information call or write.

DISPERSING – Surfynol TG fits the requirements of a nonionic dispersant for emulsion paints and other emulsion and water-based systems TG is an 83% active mixture of a Surfynol and an alkyl phenyl ether of polyethylene glycol in ethylene glycol solution. It promotes increased hiding power and better color development in emulsion polyvinyl acetate, acrylic or butadiene-styrene paints.

viscosity control – Surfynol 82 (dimethyl octynediol) is most active as an anti-gelling agent. In addition to its use in shampoos, Surfynol 82 is recommended for viscosity reduction in vinyl plastisols, aqueous starch solutions, and flexographic inks.

volatile WEITING – Surfynol 61 (dimethyl hexynol) is a volatile wetting agent. Surfynol 61's volatility permits easy elimination from a system after its work is done. One example is in glass cleaning formulations where Surfynol 61 helps solubilize dirt but leaves no film on the glass after cleaning.

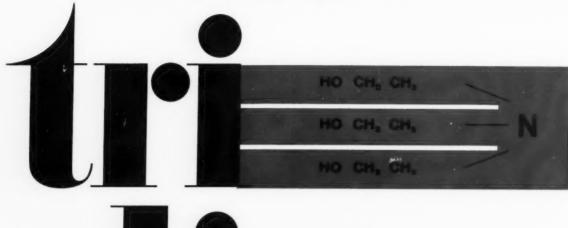


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It won't hold for everybody, but in some applications where di- or triethanolamine is being used, there are positive advantages to be gained from switching to mono-. For example, MEA can frequently be used advantageously as the amine in amine soap emulsifiers for such products as cutting oils, weedicides, waxes and buffing compounds. In some instances total amine required is reduced to the extent that cost is

reduced. In some cases mixtures of MEA and TEA are better than either alone. MEA may improve performance while TEA maintains a lower pH.

If your product or process now utilizes DEA or TEA, it may pay you to evaluate MEA. Allied makes all three, and will give you technical suggestions that may help you reduce costs, improve efficiency or make a better product. Write for any technical assistance you need.

For specifications and local offices, see our insert in Chemical Materials Catalog, pages 435-442 and in Chemical Week Buyers Guide, pages 35-42.

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Products and PROCESSES

Hand Cleaning Paste

A paste which is claimed to remove from hands all types of printing dyes comprises the following ingredients:

Soap chips	Kilograms 2.00
Ethanol, denatured, 99.8 per cent	10.00
Diethylene glycol monoether acetate	6.00
Diethylene glycol Monoethyl ether	2.00
Ethylene glycol monoethyl ether Sodium hydroxide Glycerol Castor oil	1.00 2.00 0.25 0.25

Mix at about 85° to 90° C. until a uniform solution of the soap chips is formed. After cooling, 12 kilos of pumice powder or quartz sand are stirred into the gelatinous paste. (Norwegian patent application 126,436)

New "Carbopol" Resin

Two new members have been added to the "Carbopol" line of water soluble resins it was announced recently by B. F. Goodrich Chemical Co., 3135 Euclid Avenue, Cleveland 15. The "Carbopols" are versatile polymers used to improve detergent bars, shampoos, and a number of other specialties with respect to consistency, stability and other properties. The original "Carbopol 934" has been supplemented by "Carbopols 940" and "941". Formation of water or water/alcohol gels is the forte of "910", whereas "911" is suggested to form permanent suspensions and emulsions at relatively low viscosities, especially in highly ionic systems.

New Insecticidal Spray

A new insecticidal concentrate has just been introduced by Fairfield Chemicals, Food Machinery and Chemical Corp., 441 Lexington Avenue, New York 17. "Fairfield Residual Concentrate No. 1" reportedly combines the knockdown and insect flushing properties of "Pyrenone" with the residual effect of malathion. It is

designed for direct dilution with base oil at the rate of one part of concentrate to nine parts of oil. This oil solution may be used indoors as a surface spray in spot treatments for control of crawling insects such as roaches, silverfish, carpet beetles, brown dog ticks, etc. Residues formed by spraying are claimed to be effective against resting house flies, wasps and mosquitoes.

"Pyrenone" is Fairfield's brand of pyrethrins synergized with piperonyl butoxide. The odor problem commonly associated with malathion is said to be minimized in this new product. Composition of the concentrate is as follows:

Active ingredients Malathion (100 % basis) Piperonyl butoxide.	per cen 20.00
technical Pyrethrins Petroleum distillate	1.25 0.50 78.25
Total	100.00

A technical bulletin is available from Fairfield giving detailed information on properties and applications of the new concentrate.

Insecticide Safety Pack

A water soluble safety pack for toxic materials such as insecticidal concentrates is suggested in an article by M. A. Phillips published in the Sept. 1959 issue of Pest Technology. Designed to hold solids or liquids, provided there is no appreciable amount of water present, the pack is made of polyvinyl alcohol sheeting, 0.04 mm thick, and heat sealed. In practice the pack should be in a metal container, properly sealed against entry of water. The PVA pack will normally contain the insecticide, a wetting agent, and a dye. The latter is not only an additional safety factor but also an indicator, showing when the pack begins to break up.

These safety packs are most suitable for use in spray tanks which use a power operated mechanical agitator, although they can be used in other types provided enough time is allowed for solution.

Armour 'Idea Chemicals'

Antistalling agents for gasoline and anti-caking agents for hygroscopic materials are among the novel chemical specialties to be shown by Armour Industrial Chemical Co. at the 27th Exposition of Chemical Industries at the Coliseum in New York, Nov. 30 to Dec. 4. The theme of Armour's exhibit will be "Idea Chemicals". Alpha sulfo fatty acids and polyethoxylated quaternary ammonium chlorides will be among the wide range of aliphatic organic chemicals to be included in the exhibit.

Particle Size Analyzer

The Atomic Energy Commission has authorized Evans Research and Development Corp., New York, to undertake the design, construction and commercial development of a new soft-beta particle size analyzer, it was announced late last month. Measurement of particle size and distribution is important to all industries using powders, emulsions, aerosols, suspensions, etc. The new development is expected to remove some of the weaknesses inherent in current methods and to improve quality control and production efficiency in the processing industries.

Bacteriostat Bibliography

The latest supplement to the Sindar bibliography for "G-I1" bacteriostat has just appeared as No. 3, 1959, of the Sindar Reporter, house organ published by Sindar Corp., 321 West 44th Street, New York 36. Covered in the form of abstracts are 23 papers and four patents pertaining to "G-I1" (hexachlorophene U.S.P.). The original annotated and indexed bibliography on the subject was published by the firm in 1955, supplements in 1957 and 1958.

· NEW ·

SHANCO BRIGHT-DRYING FISCHER-TROPSCH WAX

The first Fischer-Tropsch wax to dry from water emulsion to a high gloss film.

The particle size of conventional emulsifiable Fischer-Tropsch waxes is such as to give dull film from water emulsions.

Shanco's new W-1142 emulsifies readily to give a highly translucent product (indicative of a very fine particle size).

A film laid down from such an emulsion is quite similar to one made from number one yellow carnuba wax, such a film, as with carnuba wax, is best supplemented with or by a Shanco alkali soluble leveling agent such as Shanco L-1127 or L-1135 to make a marketable finished product.

It would be worth your while to try a small laboratory batch. Just say you would like a working sample.

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CSMA Meeting Program

Dr. William S. Gump, research associate of Givaudan Corp., New York, and its subsidiary, Sindar Corp., has been chosen by the Society of Cosmetic Chemists to receive its 1959 Medal Award for his contributions to the "art and science of cosmetics." A leading contributor in the field of bacteriostatic agents for use in antiseptic soaps and cosmetics, Dr. Gump discovered hexachlorophene. Medal will be awarded to Dr. Gump at Society's annual meeting to be held in New York, Dec. 2.



New uses are still being found for

GROCO RED OILS & WHITE OLEINES

SPECIFICATION	WHITE	OLEINES	RED OILS						
	GROCO 6 USP	GROCO 5L Low Linoleic	GROCO 2	GROCO 4	GROCO 8	GROCO 18			
Titre	2° - 5°C. 36° - 41°F.	2° - 5°C. 36° - 41°F.	3°C. max. 37.4°F. max.	4° 6°C. 39.2°-42.8°F.	8° — 10°C. 46.4°—50.0°F.	18° - 20°C. 64.4° - 68°F			
Lovibond Red	1 max.	1 max.	1 max.	1 max.	1 max.	2 max.			
Color 51/4" * Lovibond Yellow Color Gardner 1933	8 max. 2 max.	8 max. 2 max.	10 max.	10 max.	10 max.	15 max.			
Unsaponifiable	1.0 % max. 199 — 204 198 — 203	1.0 % max. 201 — 206 200 — 205	1.5 % max. 198 — 203 197 — 202	1.5 % max. 198 — 203 197 — 202	1.5% max. 198 — 203 197 — 202	1.5 % max. 204 max. 203 max.			
% F.F.A. as Oleic Acid Iodine Value (WIJS)	99.5 min. 95 max.	99.5 min. 90 max.	99 min. 95 max.	99 min. 94 max.	99 min. 92 max.	99 min. 85 max.			
Refractive Index 50°C. (Average) Total Polyunsaturated Fatty Acids	1.4500	3.5 % max.	1.4505	1.4500	1.4495	1.4485			
COMPONENT FATTY ACIDS				227					
C14 Myristic C16 Palmitic	5% 3%	6% 2%	5% 4%	5% 5%	5% 6%	5% 10%			
C18 Stearic C18 Oleic C18 Linoleic	1% 82% 8%	- 89 % 2.5 %	1 % 80 % 9 %	1% 79% 9%	2% 77% 9%	4% 72% 8%			
C18 Linolenic	1 %	0.5 %	1%	1%	1%	1%			
MACKEY TEST:									
Time to reach 105°C.	over 7 hrs.	over 7 hrs.	over 4 hrs.	over 4 hrs.	over 4 hrs.	over . 3 hrs.			

For more information on A. Gross fatty acids, send for new edition of "Fatty Acids in Modern Industry."

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*1" cell for red oils

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In the West talk it over with

Maas

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Now QUESTEX EDTA Chelants open up new frontiers for even greater improvements.

Some interesting ideas about product improvement are outlined on the back of this page.



A. R. MAAS CHEMICAL CO. Division of Victor Chemical Works

General Offices: South Gate, California Plants: Richmond and South Gate, California



Turn the page over







PRACTICAL IDEAS

Metal cleaners work better when monosodium or acid pyrophosphate are added. Provides better paint bond.

Dishwashing compounds are improved with Chlorinated TSP. better cleaning, sanitizing, rinsing. Helps prevent water spotting.

Clay and cement slurries may be pumped with less water if pyro or tripolyphosphates are added.

Plastic dishes clean better when detergent formula includes Chlorinated TSP. Better stain removal.

Dairy cleaners give better milkstone removal when phosphoric acid or QUESTEX is added.

Steam cleaning compounds are improved with QUESTEX so they do not clog equipment.

Heavy duty liquid detergents built with tetrapotassium pyrophosphate are more efficient. Use TKPP for liquid soap clarification.

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GENERAL OFFICES: 4570 Ardine St. - South Gate, Calif. (LUdlow 8-2214)
PLANTS: Richmond and South Gate, California



News

New Director at Fels

Fels & Co., Philadelphia, recently elected Robert D. Hedberg, vice-president of Bishop and Hed-



Robert D. Hedberg

berg, Inc., Philadelphia investment counseling firm, to the board of directors. A security analyst, Mr. Hedberg is trustee of the Rittenhouse Fund and director of Nucleonics Chemistry and Electrical Shares, Inc., Philadelphia. His election was announced by Cyril G. Fox, president of Fels.

L. A. Soap Names Strobl

Lee J. Strobl, plant superintendent of Los Angeles Soap Co., Los Angeles, has been advanced to the post of plant manager, it was announced recently by Andrew K. Forthmann, president. Mr. Strobl, who had been plant superintendent for over six years, succeeds George W. Busby, Jr., who has resigned.

Mr. Strobl first joined Los Angeles Soap Co. in 1935. He was named foreman of the glycerine department in 1950, and two years later processing superintendent. He became plant superintendent in 1953.

P&G Record Sales

Record sales of \$1,368 billion and all-time high earnings of \$81.7 million were reported last month by Procter & Gamble Co.,

Cincinnati, at its annual meeting for the fiscal year ended June 30. In their report to the firm's stockholders, R. R. Deupree, board chairman, and Howard Morgens president, stated that 70 per cent of the company's sales were in products created since the close of World War II. The other 30 per cent, they noted, were in products which have been improved many times in that period. Their statement pointed out that since 1947-49 the growth of P&G's dollar volume has reflected primarily an actual growth in tonnage since average prices of its products today are no higher than they were in that three year period. The P&G spokesmen also pointed out that the bulk of the firm's volume is in soaps, detergents and fats and

New Odorless Deodorant

A new odorless deodorant for household, industrial, and institutional use was recently introduced by J. B. Krull Products, 26 Washington St., South Charleston 3, W. Va. Originally developed for hospital use, the product is said to control residual odors without masking or paralyzing the sense of smell. Other claims made for the product are that it can be used in washing and disinfecting dishes, utensils, and garments, is nontoxic, and inhibits growth of mold and mildew.

New Fuller Sales Rep.

Fuller Brush Co., East Hartford, Conn., recently announced the appointment of William R. MacCready as sales representative in the Columbus, O., area for its industrial products division. Mr. MacCready has been with Fuller since April, 1956, and served at the home office on chemicals and "Fullergript" sales. His new territory includes the central and southern sections of Ohio and West Virginia.

Colgate Elects Young

Robert W. Young, Jr., was elected vice-president and director of marketing, household products



Robert W. Young, Jr.

division, Colgate-Palmolive Co., it was announced last month.

He was formerly with Kenyon & Eckhardt, Inc., New York advertising agency, as vice-president and account supervisor.

In his new post Mr. Young is responsible for planning and direction of all advertising, promotion, merchandising, sales and distribution activities for all products of the division. He reports to William T. Miller, division vice-president and general manager. The household products division handles such products as Colgate's "Palmolive" and "Cashmere Bouquet" soaps, "Ajax" cleanser, "Fab," "Ad," "Vel," "Super Suds," detergents and "Florient" room deodorant.

New Building for Dura Wax

Dura Wax Co. began a move early this month into a new building at 610-20 W. Main St., Mc-Henry, Ill. The new plant is reported to be equipped with the latest processing equipment available to the industry. Dura Wax new telephone number is EVergreen 5-5000.



How to keep a floor polish competitive

It costs more today to make a good floor polish. More ingredients, higher material prices.

But you get a better bargain than ever on one ingredient—the resin.

Take a look at phenolic resin prices for the past five years. Most of them have been pretty stable. The more resin you use in a polish, the better you protect yourself against price swings in other ingredients, such as natural waxes.

That's not all. Resin is a good buy because it gives you so many of the things that make a polish successful.

In many formulations, by adding more resin you can improve hardness, gloss, translucency. You can use resin to enhance leveling qualities, get higher slip resistance, reduce water spotting. Resin makes the emulsion more stable to improve shelf life, too.

There's only one caution: it takes experience to get results like these. Leading polish manufacturers do it with Durez phenolic resins—the stand-

ard of the industry for 20 years.

Your Durez man has the experience; can help you apply Durez resins successfully in your formulations. Call him in now, or write us for further information.

If you prefer to buy fusions of resin and wax, you can get them, made with Durez resins, from many specialty processors. Ask us for their names.

DUREZ PLASTICS DIVISION

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HOOKER CHEMICAL CORPORATION



SOAP and CHEMICAL SPECIALTIES:

Oakite Advances Rohlfsen

The appointment of T. A. Rohlfsen as manager of the south Pacific coast division of Oakite



T. A. Rohlfsen

Products, Inc., New York, was announced recently. He succeeds J. C. Leonard, who retired after 35 years with the firm.

Mr. Rohlfsen joined Oakite in 1947 as technical service representative in Los Angeles. In 1955 he received a citation for distinguished Oakite service.

In his new position, Mr. Rohlfsen directs the activities of 14 technical service representatives in Southern California's industrial community,

Avon Splits Stock

Shareholders of Avon Products, Inc., New York, will receive two additional shares later this month for each one they held on Oct. 26. At a special meeting last month stockholders voted for the three for one split and approved an increase in the authorized common shares of from 3.6 million to 10.8 million. Avon's carnings for the first three quarters of 1959 were \$8,583,269, or \$2.68 a share, compared with \$5,598,482, or \$1.74, in the corresponding 1958 period. Dividend rate on the new shares was to be fixed at a directors meeting early in November, according to John A. Ewald, president. The company's stock is still under consideration by the directors for listing on the New York Stock Exchange, Mr. Ewald said. An increase in outstanding shares by a firm and public ownership are often interpreted as preliminary steps toward applying for a listing on the Exchange.

Corso Joins Colgate

The appointment of Frank P. Corso as a research and development field representative in the industrial products section of the household products research and development department of Colgate-Palmolive Co., New York, was announced recently by Richard B. Wearn, director of research for the household products division.

Mr. Gorso previously was chief control chemist in the surgical products division of American Cyanamid Co., New York. He had also served as a technical sales representative for American Cyanamid.

New Shulton Advtg. Head

Gilbert J. Supple has been appointed advertising director of Shulton, Inc., Clifton, N. J., it was announced early in October by Frank N. Carpenter, vice-president. Mr. Supple succeeds Walter P. Lantz, who has been appointed director of market research.

Prior to joining Shulton, Mr. Supple was creative and television director at R. K. Manoff, Inc. Earlier he had held creative and copy positions at three New York advertising agencies.

Gilbert J. Supple



Schwaikert in New Post

Ralph A. Schwaikert, formerly vice-president in charge of production, has been advanced to



Ralph A. Schwaikert

the post of executive vice-president of Bon Ami Co., New York. Announcement of Mr. Schwaikert's appointment was made by R. Paul Weesner, president of the 75-year old household products firm.

Mr. Schwaikert went to Bon Ami in 1953 as a research associate. Prior to that he had been in charge of production for E. Hurley Co., and earlier had been assistant superintendent of production for Oakite Products, Inc., New York. Mr. Schwaikert later became project engineer and assistant manager, a position he held until last year when he was appointed vice-president in charge of manufacturing to succeed Jay E. Rand, who retired after 35 years with Bon Ami. In that post Mr. Schwaikert was responsible for Bon Ami manufacturing units at Manchester, Conn.; Newark, N. J.; Hobart, Ind.; Montreal, Canada and Sidney, Australia, as well as mining operations at Grafton, N. H., and Spruce Pine, N. C.

P&G Earnings Increase

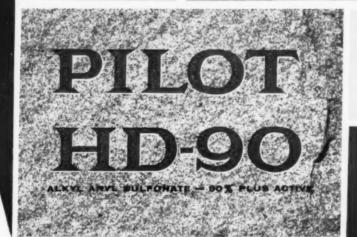
Net income of Procter & Gamble Co., Cincinnati, for the quarter ended Sept. 30 was reported last month at \$29,472,211, or \$1.42 a common share, compared with \$23,992,293, or \$1.16 a share, in the corresponding 1958 period.

Automotive Cleaners

Bubble Baths

Steam Cleaners

Dishwashing Compounds



Household Cleaners

Metal Cleaners

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Pilot HD-90 is the result of an ice-cold sulfonation in a dilute, air-free vacuum. This unique process builds-in an outstanding detergency and sudsing character

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High-foam-per-pound-of-active makes HD-90 ideal for such products as scouring powders and bubble baths! The high organic and blandness of HD-90 is desirable for cosmetics, dishwashing liquids, etc. HD-90 may be used to increase the concentration of sulfonate active in dry mixes which have been "dry neutralized" from Pilot ABS-99 Sulfonic Concentrate.

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Manufacturers of Sulfonic Acid Dodecyl Benzene Sulfonates Sodium Toluene Sulfonate

Puritan Elects Directors

Puritan Chemical Co., Atlanta, recently elected as directors R. Carl Chandler, chairman of



R. Carl Chandler

Standard Packaging Corp., New York, and Raymond C. Hagel, president of Smith, Hagel, & Knudsen, Inc., New York advertising agency. Their election was announced by A. L. Feldman, Puritan's president.

Mr. Chandler is also a director of Crowell-Collier Publish-



Raymond C. Hagel

ing Co., New York; Metalsalts Corp., Hawthorne, N. J.; J. D. Jewell Co., Gainesville, Ga.; and Chromalloy Corp., White Plains, N. Y.

TGA Section Meets Dec. 1

The Scientific Section of the Toilet Goods Assn. will meet Dec. I to hear a technical program of seven papers at the Waldorf Astoria Hotel, New York. The all-day meeting will start at 9:30 in the Sert Room, with luncheon set for 12:30 in the Empire Room.

Papers scheduled for the meeting include:

"The Synthesis and Properties of Mercaptans Having Different Degrees of Acidity of the Sulfhydryl," by J. W. Haefele, R. W. Broge, and W. L. Courchene, Procter & Gamble Co., Cincinnati;

"Instrumental Evaluation of Citronella Oils and Palmarosa Oil—Geraniol, Citronellol and other Constituents," by James A. Rogers, Jr., Fritzsche Brothers, Inc., New York;

"Panthenol in Cosmetics," by S. H. Rubin and L. Magid, Hoffmann-LaRuche, Inc. Nutley N. J.

LaRoche, Inc., Nutley, N. J.

"The Objective Measurement of Odor. III. Breath Odor and Deodorization," by Donald A. N. Mackay and Murray Berdick of Evans Research & Development Corp., and David A. Lang of American Chicle Co., New York;

"Recent Advances in Instrumental Examination of Fragrance Materials," by Ernest T. Theimer, Van Ameringen-Haebler, Division of International Flavors & Fragrances, Inc., New York:

"Method for Protecting Peroxide Bleached Human Hair," by Dr. Peter Flesch, department of dermatology, University of Pennsylvania Medical School, Philadelphia:

"Methionine in Cosmetics and Pharmaceuticals," by H. J. Prebluda of U. S. Industrial Chemicals Co., and Irwin I. Lubowe, Metropolitan Hospital Center of New York Medical Col-

Attendance is confined to representatives of member companies. There is no registration lee. Advance reservations for luncheon cost \$12.50 per person; if purchased at the door, charge is \$15.00 per person. Requests for badges and reservations should be addressed to TGA, Room 2006, 1270 Avenue of the Americas, New York 20.

Purex Sales, Earnings Up

Net sales of Purex Corp., Ltd., South Gate, Calif., for the first quarter ended Sept. 30 of its 1959-60 fiscal year increased by 18 per cent. Quarterly sales this year amounted to \$19,714,000 compared with \$16,549,000 in the corresponding 1958 period. Net earnings amounted to \$759,000, an increase of 18 per cent over last year's \$641,000.

Colgate Earnings Increase

Consolidated net income of Colgate-Palmotive Co., New York, for the first nine months of 1959 was \$18,092,000, or \$2.22 per common share, compared with \$14, 776,000, or \$1.92 per share, in the corresponding 1958 period. Consolidated net sales for the first nine months of 1959 were \$440,-472,000, compared with \$403,539, 000, last year. For the third quarter of this year, earnings were \$7,007,000, or 85 cents per share, and sales were \$148,256,000. Earnings amounted to \$6,421,000 or 84 cents per share, in the third quarter of 1958, when sales were \$138,093,000.

Two Johnson Promotions

S. C. Johnson & Son, Inc., Racine, Wis., was reported last month to be preparing two promotions, one for its "Glo-Coat" floor wax, and the other for its "Glade" air freshener. Television advertising will back the promotion for all four scents of "Glade" which will carry a 10-cents-off label. The promotion for the floor wax will feature coupons redeemable for 10 cents which will appear in advertisements in newspaper Sunday supplements.

Carbide Names Polderman

Lester D. Polderman was recently advanced to product sales manager at Union Carbide Chemicals Corp., New York. In his new position Mr. Polderman is responsible for market planning of the company's ethylene oxide and many of its primary derivatives. With Carbide since 1936, he was appointed assistant product sales manager last year.

New Boyle-Midway Agency

Advertising for "Easy-off" oven cleaner, "Easy-off" window spray, and "Griffin" shoe polishes from Boyle-Midway division of American Home Products Corp., New York, was recently assigned to Tatham-Laird, Inc., New York advertising agency.

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Linder Joins Colgate

The appointment of Ralph F. Linder as general products manager, household products di-



Ralph F. Linder

vision, Colgate-Palmolive Co., New York, was announced last month by William T. Miller, division vice-president and general manager. Mr. Linder was vice-president and director of the grocery division at Donahue and Coe, Inc., New York advertising agency.

Lever Buys Food Firm

The assets of Dinner Ready Corp., New York, manufacturers and distributors of frozen meat specialties, has been acquired by a subsidiary of Lever Brothers Co., New York, it was announced Oct. 13. While this action marks the first appearance of a Lever Brothers interest in the frozen food field, the new products will not be integrated with the company's present food lines. They will be handled by a separate company, Dinner-Redy Corp., which will operate as an autonomous unit.

Gillette Extra Dividend

Gillette Co., Boston, declared a quarterly dividend last month of 62.5 cents per common share and an extra dividend of 37.5 cents per share, both payable Dec. 5. The company had paid 50 cents in previous quarters this year and last December declared an extra dividend of 25 cents per share. Also announced were the

results of the firm's operations for the first nine months of this year. Consolidated net income was \$22, 476,774, or \$2.42 a share, compared with \$19,730,136, or \$2.13 a share, in the 1958 period. Net sales rose to \$156,975,107 from \$145,888,140.

Bareco Appoints West

The appointment of Gene W. West as coordinator of sales and technical service for Bareco Wax Co. division of Petrolite Corp., St. Louis, Mo., was announced last month by B. H. Clary, division sales manager. He is responsible for the Bareco line of "WB" waxes for use in the manufacture of carbon paper inks. With the Bareco research laboratory in Barnsdall, Okla., for several years before being transferred to the sales department, Mr. West continues to have his headquarters at the Chicago sales office. Meanwhile Mr. Clary announced a stepped-up research and technical service program for carbon paper waxes under the direction of Frank Mange of the Petrolite research staff in St. Louis.

P&G Elects Snow

E. A. Snow, manager of the advertising department for Procter & Gamble Co., Cincinnati, was



E. A. Snow

elected vice-president-advertising last month. Mr. Snow joined P&G in 1933 and held various management positions in the advertising department before becoming manager in 1957. In his new post he is in charge of the placement of more than \$115 million in advertising expenditures for the company's product lines. He fills a position which was vacant since 1957.

Fatty acid salesmen from the fatty acid sales department, the Vopcolene Division, and the Canadian subsidiary of Emery Industries, Inc., Cincinnati, gathered recently for a three day meeting devoted to a review of the chemistry and utilization of fatty acids. They are, left to right: E. W. Sack, Cleveland; T. W. Macy, Boston: R. J. Roberts, New York: D. C. Tucker, account executive from the firm's ad agency: J. V. Lang, Toronto: J. P. Kramer, Philadelphia: R. K. Dukoff, Toronto: D. R. Eagleson, fatty acid sales department: A. C. Fusaro, assistant director of advertising: W. N. Fieglein, Houston: W. T. Meinert, director of development and service: H. D. Armitage, New York: M. R. Tucker (rear), Cincinnati; R. H. Proctor, Atlanta: R. C. De Lollis, New Jersey: R. H. Dhonau, development and service department: G. W. Boyd, sales manager, fatty acid sales department: P. N. Leech, Chicago: J. T. O'Connell, Montreal: J. Z. Sack (rear), St. Louis: W. R. Sawrey, Vopcolene Division: R. D. Aylesworth (partially hidden at rear), development and service department: F. E. Eden, development and service department: D. W. B'Hymer, fatty acid sales department: and E. L. Spencer, advertising department.





Jefferson Chemical offers comprehensive patent and literature surveys on ETHYLENE AND PROPYLENE OXIDES

To those of you engaged in industrial research, Jefferson is pleased to offer two highly useful patent and literature abstracts . . . "The Preparation of Non-ionic and Other Surface Active Agents Based on Ethylene Oxide" and "The Chemical and Physical Properties, Applications, and Toxicity of Propylene Oxide."

The ethylene oxide survey is concerned with the many reactions of ethylene oxide with alcohols, acids, amines, amides, etc., which lead to surface active agents, especially of the non-ionic type. Included are investigations on the solubilizing effect attained by the addition of ethylene oxide; end product uses with emphasis on detergent compositions; and techniques whereby non-ionics are converted to ionics through sulfation and other reactions. The propylene oxide survey summarizes investigations undertaken on the reaction of propylene oxide with many different classes of organic compounds. The application section is based not only on the direct use of propylene oxide but also on the use of propylene oxide adducts. Information on toxicity is provided. Both surveys

contain author-patentee and numerical patent indices.

Jefferson can provide high quality ethylene and propylene oxides in any quantities you desire. For samples of these reactive intermediates or your copies of the comprehensive patent and literature surveys, write on your company letterhead to Jefferson Chemical Company, Inc., 1121 Walker Avenue, P. O. Box 303, Houston 1, Texas.



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Essential Chemicals From Hydrocarbon Sources



S. L. Mavham, seated at right, executive vice-president of the Toilet Goods Association, was the featured speaker at the CIBS luncheon meeting in New York last month. With him, seated left to right, are Harold Anderson, H. Kohnstamm & Co.: Lamson Scovill, Scovill Manufacturing Co.: John Duncan, Hazel-Atlas Glass Co.; and, standing, left to right, Robert Ring, Hewitt Soap Co.; Allen Stewart, Parfait Promotional Packaging Co.; Shockley C. Gamage, Magnus, Mabee & Reynard, Inc.; and Jay Stephens, Daggett & Ramsdell, Inc.

Mantrose Acquires Mac-Lac

The acquisition of Mac-Lac Co., Rahway, N. J., importer, bleacher and manufacturer of shellac and related products, by Mantrose Corp., New York, was announced last month by Robert J. Milano, president of Mantrose, Mac-Lac became a separate operating division of Mantrose, Oct. 15.

Henry Blanchford, formerly secretary, and Philip Harris, formerly assistant to the president of Mac-Lac, have been appointed general manager and marketing manager, respectively, of the Mac-Lac Division.

Sales and executive offices of Mac-Lac, formerly located at 33 Rector St., will be consolidated with the Mantrose offices at 99 Park Ave., New York 16, N. Y. Plant and research laboratory of the Mac-Lac Division continue to be located in Rahway, N. J.

Sundries Exposition Held

The third annual Super Market Sundries Exposition was held at the Coliseum in New York, Oct. 14-17. More than 200 exhibitors of housewares and soft goods displayed their products for buyers from supermarkets and chain stores. Several aerosol products were on view including "Garbo"

garbage can deodorizer and "Rust-Nip" rust solvent from Nip-Co Manufacturing, Inc., New Rochelle, N. Y.: "Miracle Shoe Shine" from Eastern Novelty Manufacturing Co., Brooklyn, N. Y.; and a dry shampoo and flea killer and insect repellent for pets from The Hilo Co., Norwalk, Conn. Another product, from Abbott-Lane Industries. Inc., Merrick, N. Y., tradenamed "Visionkleen Pellet," is about the size of an aspirin tablet. When dissolved in eight ounces of water, it is claimed to clean glass, hard surfaces, and fabrics.

Grant Stinchfield was recently appointed sales promotion manager for Pharmaceuticals, Inc., and The J. B. Williams Co., New York. Formerly with Warner Lambert Pharmaceutical Co., Morris Plains, N. J., Mr. Stinchfield now makes his headquarters in New York.



Colgate Advances Pill

J. Donald Pill was appointed to the newly created position of director of marketing planning last month at Colgate-Palmolive Co., New York. He reports directly to John L. Bricker, corporate vicepresident of marketing. Joining the company in 1945 as an industrial engineer, Mr. Pill later served successively as supervisor of industrial engineering, chief industrial engineer, controller of the toilet articles division, and most recently, director of management control. In his new post he has responsibilities in the development of strategic marketing plans, establishment of over-all marketing objectives and policies, and development of plans for the long-term growth of the company.

Firmenich Buys Ciba Plant

Firmenich, Inc., New York, recently announced the purchase of the Ciba manufacturing plant and facilities at Kimberton, Pa. Located on a 113 acre site, the plant comprising 65,000 square feet, was reconstructed and modernized in 1954. Initial production of Firmenich aromatic chemical specialties in the United States is expected to be undertaken at the new plant. The parent company, Firmenich & Cie, makes its world headquarters in Basle, Switzerland.

Bon Ami Radio Advertising

Bon Ami Co., New York, recently added the Mutual radio network to its advertising schedule. The contract covers 30 spot commercials per week over about 450 radio stations for a 13-week period. The company also began a 52-week participation last month on the nightly Jack Paar show.

Applegate Builds Plant

Applegate Chemical Co., Chicago, manufacturers of marking machines and indelible inks, recently built a new and larger plant in Skokie, Ill. The new facility is part of the company's current expansion program. Data from the SILICONES MAN

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able inherent properties, silicones make your product infinitely more desirable. And saleable.

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SILICONES

CSMA December Meeting Program Grows

ADDITIONAL papers to be presented during the 45th annual meeting of the Chemical Specialties Manufacturers Assn. at the Mayflower Hotel, Washington, D. C., Dec. 8 and 9 were announced late last month by H. W. Hamilton, CSMA executive vice-president and general manager. Besides those papers listed on page 20 of the October issue of Soap & Chemical Specialties those listed below are scheduled to be delivered.

Automotive Division, Tuesday morning, Dec. 8: "Windshield Washing Fluids and Concentrates," by T. Flaxman, Wilco Co., Los Angeles: "Toxic Chemicals," by Robert E. Gosselin, Dartmouth Medical School, Hanover, N. H.; "Cooling System Products," by Irvin Folk, Atlas Supply Co., Newark, N. J.: "Progress of Legislation Pertaining to Hazardous Chemicals," by F. Dallas Sparre, E. I. du Pont de Nemours & Co., Wilmington, Del.; "Chemical Waxes as a Replacement for Carnauba Wax in Automotive Products," by a speaker from Cornelius Wax Refining Corp., Edison, N. J.; "Marketing Automotive Specialties," by Walter A. Kohn, Croton-on-Hudson, N. Y.

"What is the Home Environment?" is the theme set for the first session of the Disinfectant and Sanitizers Division. Scheduled are: "Processing of Bedding and Mattresses," by M. Foster of Robert Taft Sanitary Engineering Center, Cincinnati; "Common Diseases Communicable from Household Pets to Man," by R. L. Burkhardt, V.M.D., American Cyanamid Co., Princeton, N. J.; and "Mold Population Within the Home," by Mary A. Swaebly-Ehrlich, Duquesne University, Pittsburgh, Pa.

The Aerosol Division has added two more speakers to its Tuesday morning program: "What Grocery Chains Think of Aerosols," by George Burnett, Giant Food Stores, Landover, Md.; and "Market Potential for Undeveloped Aerosols," Ralph Crane, E. I. du Pont de Nemours & Co. "Building Aerosol Sales Through Better Packaging" will be discussed by William Simms of Modern Packaging, and not by Mr. Libson as previously announced.

Featured luncheon speaker on Tuesday Dec. 8 will be Cameron Hawley, author of the books, "Executive Suite" and "Cash McCall," and widely known writer of magazine articles. He will speak on: "The Quality of Leadership."

The Insecticide Division, meeting the afternoon of Dec. 8, will hold a symposium on non-agricultural sprayers as announced in October. Division chairman John A. Rodda, Fairfield Division of Food Machinery & Chemical Corp., will speak on the subject "Round the World."

At the general session on Wednesday morning, Dec. 9,

CSMA will elect officers for 1960. The slate was chosen at a meeting of the nominating committee on Sept. 15. The committee was composed of: James E. Ferris, Hooker Chemical Corp., chairman; Melvin Fuld, Fuld Brothers, Inc.; Emil G. Klarmann, Lehn & Fink Products Corp.; Leonard Oppenheimer, West Chemical Products, Inc.; and Harry E. Peterson, Peterson Filling and Packaging Co.

The nominating committee's slate of officers to hold office for one year includes: George W. Fiero, Esso Standard Oil Co., president; Charles E. Beach, John C. Stalfort & Sons, Inc., first vice-president; Charles E. Allderdice, Jr., The Bell Co., second vice-president; Frederick G. Lodes, Lodes Aerosol Consultants, Inc., treasurer; and A. A. Mulliken, CSMA secretary.

Nominated for a three year term on the board of governors were: Donald M. King, Masury-Young Co., 1959 president of CSMA; Peter C. Reilly, Reilly Tar & Chemical Corp., current treasurer of CSMA; and Joseph E. Lee, McLaughlin Gormley King Co. The committee nominated Joseph J. Tomlinson to the board of governors for a one year term to replace Mr. Allderdice.

Kenneth McFarland of General Motors Corp. will be the featured speaker at the general session and David W. Kendall special counsel to the President of the United States will speak at the

David W. Kendall



Dr. Kenneth McFarland



Cameron Hawley



NOVEMBER, 1959

Dec. 9 luncheon.

The Insecticide Division has made two additions to its previously announced program for its concurrent session: "Bacillus Thuringiensis as an Insecticide," by J. M. Merritt and M. A. Manzelli of Merck & Co., Rahway, N. J., and "Analysis Between Replicates in the Cockroach Contact Spray Test," by W. S. McLeod, Canada Department of Agriculture, Ottawa.

The theme for the second session of the Disinfectant and Sanitizers Division is "What is the Work Day Environment?" One paper to be presented will be: "Efficiency of Iodine on Surfaces," by Louis Gershenfeld, Philadelphia College of Pharmacy and Science.

The title of a paper to be presented before the Wax and Floor Finishes Division, has been changed. W. A. Zisman of the U. S. Naval Research Laboratory will

speak on the "Spreading of Liquids on Solids" in place of the previously announced title.

A record number of participants have enrolled in the aerosol packaging contest. Entries at the time of writing had already exceeded 300, according to H. W. Hamilton. Award winners will be announced Tuesday morning, Dec. 8.

Wax Division Display

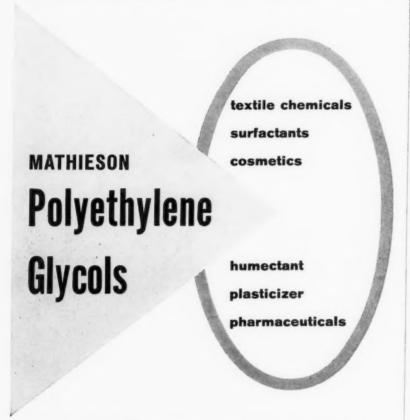
As part of its plans to commemorate the 30th anniversary of the introduction of water emulsion ("dry bright") floor waxes, the CSMA will have a special exhibit at its 45th annual meeting in Washington, D. C., Dec. 8-9. The exhibit has as its theme "30 Years of Progress in Protecting Floor Coverings". Tving in with the research fund of the Waxes and Floor Finishes Division of CSMA, the exhibit will feature actual test panels used in the project to demonstrate how waxing protects and improves the appearance of floors.

Wax manufacturers have been asked to send containers for display to Mr. Thomas Armstrong of the Industrial and Biochemical Division, E. I. du Pont de Nemours & Co., Wilmington 98, Del., by Nov. 15.

Empty cans, one quart or smaller should bear maker's brand name. Specimens of new floor coverings will also be on display.

New Guenther Film

The availability of a new, sound-color motion picture, "Essential Oils of South America", was announced recently by Fritzsche Brothers, Inc., 76 Ninth Ave., New York 11, N. Y. The film, which was made by Dr. Ernest Guenther. vice-president and technical director of Fritzsche, may be borrowed without charge for group showings. A showing of the film for customers and friends of Fritzsche took place at the Hotel New Yorker, New York, Oct. 1, In a brief introduction, prior to the showing of the film, Dr. Guenther gave a personal insight into the difficulties encountered in its making.



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"Packaged" Equipment at Chem. Show

THE trend toward "packaged" equipment will highlight the 27th Exposition of Chemical Industries, to be held at the New York Coliseum, Nov. 30 through Dec. 4. Single purpose units as well as partial or complete processing lines are offered in this form. Some packaged installations incorporate pumps, mills, and pulverizers with separators and feed-

ers, etc. Others are complete packaging plants, which weigh, fill and label automatically and continuously.

Centrifugal molecular stills, previously available for laboratory and pilot plant operations, will be introduced in models for continuous production with hourly throughput capacities ranging from 400 to 4,000 pounds. Fatty

acids, waxes, vegetable oils, tall oil, and a number of other materials may be handled by such equipment.

Also shown will be centrifugal liquid-liquid extractors of a type originally designed for metallurgical processing. These extractors are expected to bring important new developments to the soap and oil industries.

A wide variety of filtration equipment will be displayed. The first injection molded plastic filter plates ever produced commercially will be on view as well as the first all-plastic filter press headers.

Control systems energized by radioisotopes will include a tank level detector controller, a continuous container-fill system, an individual container fill inspection and rejection device, and a density measuring system based on the transmission of gamma rays through a moving mass.

A wide range of packaging equipment to be shown includes an automatic multiwall bag filler capable of filling 50 pound bags at the rate of 16 units a minute. A weighing unit will be displayed for small quantities of dry materials which will handle up to 15 weighings a minute in a range of one to 100 grams.

Among individual exhibitors who have announced their plans for the show is De Laval Separator Co., Poughkeepsie, N.Y. De Laval will display its "SRG-214" hermetic centrifuge that has a capacity of 5,000 g.p.h.; "PX-214" self-opening centrifuge for processing of liquid mixtures of high solids content; and other pieces of equipment including a stainless steel heat exchanger.

"Westfalia" separators will be exhibited by Centrico, Inc., Englewood, N.J., distributors of this line of centrifuges and contactors.

A new line of conical shaped rotating vacuum dryers will be shown publicly for the first time by F. J. Stokes Corp., Philadelphia. The line will be represented



by a laboratory size model. Other processing equipment to be featured by Stokes will include a rotary vacuum dryer and a double drum atmospheric dryer, a line of gas-ballasted rotary mechanical vacuum pumps and other representative items.

The fibre drum and corrugated box division of Continental Can Co., New York, will display a complete line of fibre drums for dry, liquid, and semi-liquid chemical products. A new sift-proof pour spout box for granular materials will be introduced. Continental will also show the "Shellpak" package, which is composed of a corrugated box and polyethylene liner, and a number of counter and floor stand shipper displays.

FDA and FLI to Confer

All members of the cosmetics, drug, and food industries have been invited to attend the joint national conference of the Food and Drug Administration and the Food Law Institute, Inc., scheduled for Nov. 16 and 17 in the auditorium of the U.S. Department of Health, Education and Welfare Building in Washington, D. C. Purpose of the meeting is to discuss food additives and other major food problems under the Federal Food, Drug and Cosmetic Act. FDA officials and industry members will be present. Complete programs of the meeting and additional information may be obtained from Charles Wesley Dunn, president, The Food Law Institute, Inc., Room 1004, 608 Fifth Ave., New York 20.

Explorers Hear Guenther

Ernest Guenther, vice-president and director of Fritzsche Brothers, Inc., New York chemical and essential oil firm, was guest speaker last month at the members lecture of the Explorers Club in New York. He showed color movies of his latest trip to Africa. The film covered not only local scenes and wild life, but also the production of certain essential oils.



DANGERS of launching a NEW PRODUCT

Snell Research can help overcome them

Here's how, in some typical case histories of Snell clients:

Product Research and Development—A few years ago Snell was retained to develop new products, applications, and markets for sugar. Extensive research and development work by Snell resulted in the creation of a new synthetic detergent—based on sugar!

Product Application—A Snell client in the paper industry, for whom we had developed a fine additive, wanted to explore uses in other fields. Unfortunately, their highly qualified staff's experience was limited to the one field. Snell, with experts in practically every product field, found the new product has potentialities as both a good emulsifier and a paint plasticizer. Only the very largest manufacturing companies can duplicate the breadth of experience and background the Snell "brain-trust" of technical experts can offer you!

Product Improvement — One Snell client found their product, an adhesive bandage, slipping in quality. Tape was going gooey in storage on druggists' shelves. Snell research helped this client bring his product quality up to equal the best on the market, and retain his share of sales.

Product Evaluation—A Snell brewery client wanted to expand production and take advantage of a more efficient production technique but feared the taste of the beer might suffer. Snell food technologists, taste panels, and engineers checked the new process and hundreds of samples of beer made under new and old systems, recommended the switch to the more profitable modern process. The change went unnoticed by the customers, and sales continued to climb.

Market Research—A Snell client with a waste product had briefly considered building a plant to use it to manufacture another product; but had given up after their own brief survey showed the new product to be already overproduced. When they consulted Snell for checking, however, Snell predicted there would be a shortage within three years. The client waited two years, built the plant—and now has a profitable new product instead of a waste!

Toxicology—One of the largest frozen food companies began getting complaints on the flavor of one of their green vegetables. Since hundreds of thousands of dollars were at stake, they consulted Snell to find out what was wrong. Snell by analyzing tests, and checking on the farm, was able to prove that the taste—actually toxic—was due to a new type of insecticide sprayed on the fields hundreds of yards away on a windy day long before the harvest!

Engineering—A large midwestern firm desired to produce its own brand of instant coffee, to possess outstanding flavor, body, and bouquet. They engaged Snell to design their extraction line, which is now economically producing a superior product, and have since doubled capacity. Since that time, two additional plants have been modified under our supervision to increase production and improve product characteristics.

What's Your Product Problem?—Whatever it is, and whatever your product field—chemicals, chemical specialties, personal products, pulp and paper, protective coatings, plasties, textiles, foods, petroleum, rubber—Snell has men who "know the score" in that field, and who can work with you creatively and profitably in developing, producing, protecting and marketing new ideas. This broad experience can be decisive in protecting not only your ideas, but also the thousands of dollars you spend developing them. And the cost of Snell service is less than you might imagine! Half the jobs we do cost less than \$1000!

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FDA Limits Pesticide

An order issued late last month by the Food and Drug Administration in Washington, D. C., would practically ban the use of heptachlor pesticide, a fruit, vegetable and grain spray made by Velsicol Chemical Corp., Chicago. Recent tests have shown, according to FDA, that a dangerous oxidation product of the pesticide called heptachlor epoxide formed on crops largely as a result of weathering. Previously the Administration permitted small residues of the pesticide on harvested crops but the new order proposes a zero tolerance on residue. Unless formally protested within 30 days of its issuance on Oct. 27, the order will become binding.

Jean Fabre Dies

Jean Fabre, chairman of the board of Roure-Bertrand Fils et Justin Dupont, Grasse, France, parent company of Roure-Dupont, Inc., New York, died recently at his summer residence near Grasse. Considered an expert in legal and financial matters, he was largely responsible for the merger of two companies into the Societe Anonyme des Etablissements Roure-Bertrand Fils et Justin Dupont. When his uncle, Louis Roure, died in 1947, Jean Fabre became president of the company. From 1949 to 1952 he was president of the Syndicat National des Fabricants et Importateurs d'Huiles Essentielles et Produits Aromatics Naturels.

Cosmetic Chemists Program

The annual meeting, reception and dinner dance of the Society of Cosmetic Chemists will be held Dec. 2, at the Commodore Hotel, New York.

The all day technical program consists of seven papers:

"New Trends in Cosmetic Testing," by Louis C. Barail, consultant, New York;

"The Beauty of the Enzyme Screen," by V. F. Lisanti, Tufts University School of Medicine; "Vinyl Copolymer in the Cosmetic

Cosmos," by Paul Weitz, National

Starch & Chemical Corp., New York; "The Closed, Open, Prophetic and

Repeated Insult Patch Tests in Study of Cutaneous Reaction," by Dr. Joseph V. Klauder, consulting dermatologist, Philadelphia;

"Dental Calculus," by Drs. Stanley Hazen and Helmut Zander, Eastman Dental Dispensary, Rochester, N. Y.;

"New Polysaccharide Gum from Dextrose by Microbial Synthesis," by Dwight L. Miller, R. F. Anderson, Allene Jeanes and S. P. Rogovin, Northern Utilization Research and Development Division of U.S.D.A., Peoria, Ill.;

"Chemistry of the Inflammatory Response of the Skin," by J. C. Houck, Childrens' Hospital Research Foundation, Washington, D. C.

For advance registration contact Walter Wynne, Society of Cosmetic Chemists, 2 East 63rd Street, New York 21.

Solvay Advances Two

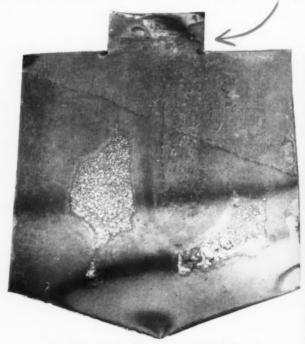
Two advancements in the sales organization of Solvay Process Division, Allied Chemical Corp., New York, were announced recently by Verne W. Aubel, Solvay director of sales. Jerome L. Hochenedel has been appointed assistant manager of the Division's

New Detergent Speeds Metal Cleaning...

Cleaned with 5% heavy duty alkaline mixture (no surfactant)



Cleaned with 5% heavy duty alkaline cleaner containing 5% alkyl aryl sulfonate (active)



SOAP and CHEMICAL SPECIALTIES

Houston, Tex., sales branch, and E. Kenneth Leins has been transferred from the technical service department in Syracuse, N. Y., to the New Orleans, La., sales branch covering the Baton Rouge area.

Mr. Hochenedel joined Solvay in 1951 and Mr. Leins has been with the company for the past ten years.

Innes to Mich. Chemical

George L. Innes, formerly manager of the chemical sales and development division of Climax Molybdenum Co., New York, was recently appointed director of sales and development of Michigan Chemical Corp., Saint Louis, Mich. He is in charge of Michigan's chemical sales and market development activities.

His previous connections include Monsanto Chemical Co., Ciba Co., Nopco Chemical Co. and Jefferson Chemical Co., where he concentrated on the marketing of ethylene chemicals.

Chemists' Club Secretary

Paul B. Slawter, Jr., vicepresident of G. M. Basford Co., New York advertising and mar-



Paul B. Slawter, Jr.

keting firm, has been elected secretary of The Chemists' Club of New York, it was announced last month by S. Howard Farkas, president. Mr. Slawter heads a Basford group which specializes in advertising and public relations for the chemical and allied industries. As secretary he succeeds Lloyd Van Doren who held the post for the past 14 years and recently retired.

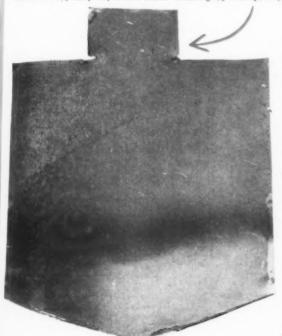
Mr. Slawter has been a member of the Club since 1941, is editor of its house organ, "The Percolator," and formerly was a trustee. Active in chemical industry affairs, he is administrative officer of the Salesmen's Association of the American Chemical Industry, Inc.

Slais in IF&F Post

The appointment of John L. Slais as sales representative for the flavor division of International Flavors & Fragrances, Inc., New York, was announced last month by E. Paul Orsay, sales manager. In his new post Mr. Slais is responsible for sales of "Alva" and "P&S" flavors in the mid-west territory and makes his headquarters at the company's Chicago office.

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Cleaned with 5% heavy duty alkaline cleaner containing 5% Triton QS-15 (active)



In controlled laboratory tests, mild steel panels coated with mineral oil (Bright stock) were rotated in detergent solutions for 5 minutes at 85° C.; rinsed in cold water and drained for 20 seconds. Residual oil was observed after spraying panels lightly with cold water.

TRITON QS-15 improves the cleaning effectiveness of alkaline baths because of its excellent detergency, solubility and stability in alkali solutions—including caustic. Our tests established these important advantages for TRITON QS-15 over alkyl aryl sulfonates: At equal active concentration TRITON QS-15 cleans three to four times faster; in cleaning cycles of equal duration it takes one-half to two-thirds less TRITON QS-15.

Improve your heavy duty alkaline cleaner formulations with TRITON QS-15. It is suggested for the cleaning of metals, bottles, food and meat processing equipment, and for any application where faster, better cleaning with alkaline solutions is important. Write for TRITON QS-15 Bulletin, San-202.



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NOVEMBER, 1959



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New York City Rat Control Conference

L EADING figures of the chemical specialties industry were present at a special rat control conference held in the offices of Jerome Trichter, assistant commissioner of environmental sanitation of the New York City Health Department, Sept. 10. The meeting was held four days prior to the start of an intensive rat control campaign designed to rid the City of its rodent problem.

Attending the meeting were: Charles Herman, Prentiss Drug & Chemical Co., New York; J. Miller, Prentiss Drug & Chemical Co.; Alfred A. Mulliken, assistant secretary, Chemical Specialties Manufacturers Association, New York; John A. Rodda, Fairfield Chemicals, Food Machinery and Chemical Corp., New York, and chairman of the insecticide division of CSMA; Ward Ross, Wisconsin Alumni Research Foundation, Madison, Wis.; and H. F. Seeland, S. B. Penick & Co., New York.

Discussed at the conference were methods by which manufacturers of insecticides and related products could aid the Department of Health in executing its rodent control program. Special emphasis was placed on consumer education.

The campaign was opened Sept .14 in a 200 square block area in Harlem. More than 100 especially-trained Department of Health inspectors made a thorough search of the buildings in the area. Shortly after Oct. 1, buildings that were found rat infested were to be reinspected. If reinspection shows that nothing has been done to attempt to control the rats, summonses will be served charging violation of the anti-rat section of the city's new Sanitary Code which went into effect Oct. 1.

According to Mr. Trichter, this section stipulates that all buildings, lots and premises be kept free of rats and free of any conditions which encourage rat infestation.



New Officers at Fuld Bros.

Melvin Fuld, president and a founder of Fuld Brothers, Inc., Baltimore, was recently elected



Joseph Fuld, left, who succeeds his brother Melvin as president of Fuld Brothers, Inc., Baltimore, Melvin becomes chairman of Fuld.

chairman of the board and Joseph Fuld, secretary-treasurer, has been named president succeeding him. James Selway has become vice-president and secretary and Donald L. Helm is now treasurer. Continuing in their former posts are: Joseph G. Sinsheimer, vice-president of production; Marvin Rubin, assistant secretary; Raymond M. Elban, assistant treasurer; and Harry J. Green, assistant secretary.

A founder of the company in 1926, Melvin Fuld has served as production supervisor and chief research chemist, a position he continues to hold. Joseph Fuld joined the firm in 1927 and has held posts in sales, advertising, and merchandising. The new vice-president and secretary, James Selway, began with Fuld in 1945 and was made sales manager in 1957. He continues to supervise the operations of the sales department.

Nat'l. Starch to Expand

National Starch and Chemcial Corp., New York, recently broke ground for two additional buildings at its Alexander Research Laboratories, Plainfield, N. J. The units will reportedly increase the company's research and development facilities by 50 per cent. One of the buildings will house the central manufacturing department and the other will be occupied by three laboratory

groups. Completion is scheduled for early next year.

CIBS Christmas Party

The annual CIBS Christmas party has been scheduled for Saturday, Dec. 5, at the Waldorf-Astoria Hotel, New York. The program includes cocktails and reception at 6:30 p.m., dinner at 8, and dancing from 9 to 1 a.m. Tickets at \$35 per couple may be purchased from Howard T. Kaneff, chairman, din-

ner committee, in care of Ar-Kay Printing Co., 200 Hudson St., New York 13.

Sandoz Transfers Welsh

The transfer of Robert Welsh from dyestuff sales in the Philadelphia area to the Pacific northwest territory was announced last month by A. T. Hanes, vice-president and marketing manager for the dyestuff division of Sandoz, Inc., New York.

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Surfactant Maker

(From Page 58)

for optimum performance under specific conditions pertaining to end use.

Practical Applications

Among the major fields of use for "Monaquests" are water softening, scale removal and prevention in boilers, heat exchangers, processing vessels, etc., bottle washing, electroplating and metal cleaning. Soaps and detergents benefit from the addition of "Monaquests" which act as clearing agents, allowing the production of brilliant shampoos or liquid soaps without chilling or aging the products. Since a number of metal ions contribute to the survival of bacteria and fungi their removal by a chelating agent permits the more effective use of disinfecting agents. Agricultural sprays that are sensitive to hard water function perfectly when treated with a sequestering agent. The addition of sequestrants to fertilizers solubilizes metals in the soil, thus permitting absorption by plants. In the textile industry chelates effect the removal of metallic ion contaminants, such as iron, copper and manganese. Use of chelates in bleaching operations improves the stability of peroxide bleaching baths, which are reduced through the catalytic influence of iron traces in cotton cloth. The removal of iron from cotton in kiers will eliminate possible trouble in the form of staining, poor bleaching, tenderizing or inferior dveing. The steeping process of linters and wood pulp in the manufacture of rayon can be carried out at a reduced cost by using less pure sodium hydroxide solution, provided the iron in the steep liquor is removed by a chelating agent.

Many dyestuffs will give off color shades in the presence of metallic ions. The use of the proper sequestering agent will counteract this tendency.

Additions to the Mona line of surfactants include the types

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Triethanolamine lauryl sulfate "Monapon SA" (paste)

Sodium lauryl sulfate

"Monaterge" \$1,-60

Triethanolamine dodecyl benzene sulfonate

"Monapal" T

An alkyl phenol ether of polyethylene glycol

"Monastrip" EP

A specialty item introduced recently. The product is a solvent stripper for epoxy, polyester, and silicone rubber compounds used for potting, casting, encapsulating, etc.

Textile Applications

Mona produces a series of yarn conditioning chemicals. ("Monalits,") which are compounded to function in conjunction with the most modern cold water yarn conditioning procedures. The term conditioning in the textile industry refers to the process in which the textile moisture content is brought to the desired amount. Conditioning is also concerned with chemical treatments for making the yarn amenable to change of shape as well as for retention of altered form, as in twistsetting.

Mona's engineering department has designed two distinct types of machine which greatly facilitate the use of these conditioning chemicals. The "Monalit" yarn conditioning machines have been designed for simple foolproof operation. All parts of the machine coming in contact with the wet yarn are constructed of stainless steel. Precision pressure nozzles assure uniform distribution of spray throughout the entire chamber.

The second type of machine was designed for use in conjunction with the automatic Abbott Quiller. This device makes it possible to condition yarn without treatment in the customary conditioning machines. Termed "Monarc

Yarn Conditioning for The Automatic Abbott Quiller," this patented device allows the weaver to take full advantage of cold water conditioning. ★★

Harris Resigns at Colgate

Remus A. Harris resigned last month as manager of new products in the toilet articles division at Colgate-Palmolive Co., New York. He had held that post since early last year. The resignation was reported to have been due to "a basic disagreement on marketing policies."

Lee to Onyx

Clinton W. Lee was recently appointed New England district manager for Onyx Oil & Chemical Co., Jersey City, N. J., producer of chemical specialties for the textile industry, surface active agents, and other industrial chemical compounds. In his new position Mr. Lee is in charge of the company's sales and service office in Boston which serves customers in New



Clinton W. Lee

England and the eastern half of New York state. For the past 10 years he was a district manager in New England for Shell Chemical Corp., New York.

Silicone Price Cuts

A five per cent reduction in the price of dimethyl polysiloxane ("Dow Corning 200 Fluid") and a series of silicone fluid emulsions was announced recently by Dow Corning Corp., Midland, Mich.

>

A <u>New</u> Water-Miscible Germicide

- High potency, broad spectrum bactericide, fungicide and virucide of low toxicity.
- Emulsifying and detergent properties, mild, pleasant odor, wide compatabilities and economical.
- Now available for new and established medicated creams, ointments, shampoos, soaps, detergents, antiseptic and antibiotic formulations, cosmetics and pharmaceuticals.
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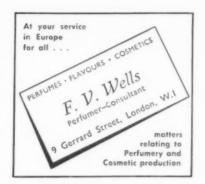
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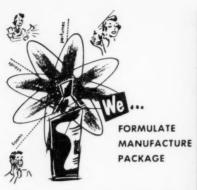
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Statement required by the Act of August 24, 1912, as amended by the acts of March 3, 1933, and July 2, 1946 (Title 39, United States Code, Section 232) showing the ownership, management, and circulation of Soap & Chemical Specialties, published monthly at New York, N. Y. for October 1, 1959.

- 1. The names and addresses of the publisher, editor, managing editor, and business managers are: Publisher, Mac Nair-Dorland Co., Inc., 254 West 31st St., New York, 1, N. Y.; Editor, Frank J. Reilly, 254 West 31st St., New York 1, N. Y.; Business Manager, 1ra P. MacNair, 254 West 31st St., New York 1, N. Y.
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- 3. The known bondholders, mortgagess, and other security holders owning or holding 1 percent or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state.) None.
- 4. Paragraphs 2 and 3 include, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting; also the statements in the two paragraphs show the affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner.
- 5. The average number of copies of each issue of this publication sold or distributed through the mails or otherwise, to paid subscribers during the 12 months preceding the date shown above was: (This information is required from daily, weekly, semiweekly, and triweekly newspapers on!y.)

signed IRA P. MAC NAIR, Business Manager

Sworn to and subscribed before me this 10th day of September, 1959.

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AOCS Meets

(From Page 62)

vertical mill, hence to a jumbo sized preliminary plodder and then to a final plodder. The product is cut on an automatic cutting table which presses it wideways through an octagonal opening to corner-cut the bars in preparation for pressing into its rather unusual shape. The corner cuts are returned by conveyor belt to the plodding system.

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Architect's drawing of headquarters of Hostawax Co. and Hostachem Corp., New York, being built in Mountainside, N. J. Completion is scheduled for next spring.

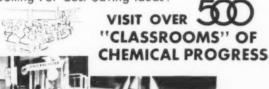
is now achieved which represents a considerable advance in technique.

New Hostawax Plant

Plans were announced recently by Intercontinental Chemical Corp., New York, for the construction of a 40,000 square foot headquarters in Mountainside, N. J. The building will house Carbic-Hoechst Corp., Hostachem Corp., and Hostawax Co., all of New York. The three firms are technical representatives and distributors for Farbwerke Hoechst

AG., West Germany, and Hoechst Chemical Corp., West Warwick, R. I. Carbic-Hoechst Corp., which sells dyestuffs, pigments, and textile chemicals, will have a modern laboratory for customer service and a complete warehouse in the building. Sales offices for chemicals and waxes of Hostachem and Hostawax will be relocated to the new facility. Intercontinental's accounting department, presently in New York, also will be moved to the new premises. The building is scheduled for completion next spring.







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COMING MEETINGS

American Oil Chemists Society spring meeting, Baker Hotel, Dallas, April 4-6, 1960.

Association of American Soap & Glycerine Producers, 33rd annual convention, Waldorf-Astoria Hotel, New York, Jan. 20-22.

Chemical Industries Exposition, Coliseum, New York, Nov. 3 - Dec. 4.

Chemical Specialties Manufacturers Association, 46th annual meeting, Mayflower Hotel, Washington, D. C., Dec. 7-9; 46th midyear meeting Drake Hotel, Chicago, May 16-18.

Drug, Chemical & Allied Trades Association, 70th annual meeting, Sagamore Hotel, Bolton Landing, N.Y., Sept. 15 - 18, 1960.

National Packaging Show, Convention Hall, Atlantic City, N. J., April 4-8, 1960.

National Sanitary Supply Assn. 37th annual convention, Fontainebleau Hotel, Miami, Fla., May 22-25, 1960.

Packaging Institute, 21st annual forum, Statler Hotel, New York, Nov. 17-19.

Packaging Machinery Manufacturers Institute, show, Colise-um, New York, Nov. 17-20.

Plant Maintenance & Engineering Show, Convention Hall, Philadelphia, Jan. 25-28.

Society of Cosmetic Chemists, annual meeting, Commodore Hotel, New York, Dec. 2: New York Chapter, monthly meeting, New Yorker Hotel, Jan. 7.

Synthetic Organic Chemical Manufacturers Association, monthly luncheon meetings, Roosevelt Hotel, New York, Dec. 2: Jan. 5; Feb. 2; March 8; April 12: annual spring outing, Shaw-nee Inn, Shawnee, Pa., May 11-13.

Toilet Goods Association, scientific section, Waldorf-Astoria Hotel, New York, Dec. 1, 1959; May 11, 1960. 25th annual meeting, Poland Springs House, Poland Springs, Me., June 27-29, 1960.

Western Canadian and North Central Weed Control Con-ference, Royal Alexandra Hotel, Winnipeg, Manitoba, Dec. 8-10.



The time is 3:05 A.M. and all is well. At 5 A. M., twelve hours after the above wire was received at Foremost El Dorado's Oakland, California plant, this tank car loaded with Eldo Methyl Laurate 96 will be rolling.

Four days and 2400 miles later in St. Louis, an anxious Foremost customer will relax. This same tank car will roll to his siding, the seal on the dome will be broken and 8000 gallons of Methyl Laurate will be ready for use ... a full day ahead of schedule.

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Tale Ends

NE of the most beautiful views of New York we have ever experienced is from the office of the Hostawax Company on the 82d floor of the Empire State Building. They have what is almost a fantastic view of the big town in three directions, north, east and west. On a clear autumn day, it is no exaggeration to say that the view is breathtaking. We wonder how they get any work done around the place!

From the fertile brain of Marshall Lachner, live-wire prez of Babbitt, came still another idea for premiums to boost the sale of their cleansers, etc. This time it was a plan to give away as premiums small chunks of the 24 historic columns which were dismantled at the east front of the U.S. Capitol in Washington. Officials had been wondering what to do with the tons of stone. Lachner saw the historic significance for school kids in a chunk of our nation's capitol. But the capitol architect said 'no,"-So Senor Lachner "abandoned the idea reluctantly." Wonder what next he will come up with in premium ideas!

In case you missed this one the first time around be sure to take your wife or girl friend to see the new film, "The Naked Maja". Early-comers to the picture will be presented with a miniature cake of "Maja" soap sold by Myrugia, Spain's leading perfumista (that's what Jill Jessee's publicity release called them).

There's more interest among employees of Procter & Gamble Co. of Canada in executives of the firm than in almost anything else connected with the organization. Walter Lacosta, editor of "Moonbeams," company house magazine, asked employees what types of articles they would like to read. Of 13 different types of stories suitable for use in "Moonbeams," those dealing with "bosses" topped them all. Such articles had never previously been published. Now editor Lacosta has 15 articles lined up. Says he: "Stories of this kind bring top men to life for employees, many of whom never even see the executives." Can't you just visualize newsboys running through P&G plants shouting, "Hey, getch 'Moonbeams'! Names, ages and jobs of every executive! Ya can't tell a boss without a program!

Narda Ultrasonic Corp., Westbury, N. Y., which has just expanded into a second building of 10,000 square feet adjacent to its main plant, says it has turned out in less than two years more ultrasonic cleaning units than the entire industry has in the previous decade. Ultrasonic cleaning units, such as Narda's "SonBlaster," are found in such diverse applications and industries as

missile test facilities, airports, aircraft and automobile manufacturing plants, dental offices and laboratories, hospitals, research labs, watch repair shops, the precision instrument industry, jewelry plants, eyeglass and contact lens manufacturers, electronic, radio and TV industries and a host of others.

Beau Jack, ex-lightweight boxing champion of the world, has just been signed to do public relations for Knomark, Inc., Richmond Hill, N. Y., makers of "Esquire" shoe polish. Beau is now shining shoes in a swank (are there any other kind?) Miami Beach hotel, But his new duties won't necessitate his leaving the job. The ex-champ will demonstrate the art of shining shoes and make personal appearances for the polish company. Ex-shoe-shine boy, Irving J. Bottner, now president of the polish firm, a long-time fan of Beau's, conceived the deal. The sports minded executive, an ex-NYU basketball star, signed Beau personally in Miami Beach.

A San Diego bus driver with an unusual hobby is looking forward to the time when he can retire into the chemical specialties business. In his spare time Operator Roy Kaple of the San Diego Transit System makes and sells a line of cleaning compounds under the name "Kap-A-Ble Products." Roy expects to expand his line and his present sales volume of glass cleaner, concentrated cleaner for service stations, dishwashing detergent, whitewall tire spray and rug

shampoo when he hits retirement age of 65. It all started when Roy spotted a woman store owner having trouble washing her store window. "I'll make you a better product for the job," Roy promised and he did.

In a search for new insect repellents, a team of entomologists at Rutgers University is testing the likes and dislikes of flies by registering messages from the insects on an oscilloscope. Tiny electrodes are fastened on hairs on the fly's legs and then to the oscilloscope. It is known that flies are attracted to sugar water and repelled by salt solution. Other chemicals are compared with patterns for these products on the oscilloscope screen. Union Carbide Chemicals Co. is supporting this project.

The Drake Hotel in Chicago, scene of so many pleasant and successful CSMA meetings lived up to its reputation as an accommodating hotel recently. A brief stop by the royal party during Queen Elizabeth's visit caused the Drake management to buy a special rose perfumed soap at \$1.50 per cake. The hotel also constructed a garden in the French room for Gov. William Stratton's reception to introduce midwestern governors and mayors to her majesty.

The fast growing acrosol field is expanding in more ways than one. We have this on no less an authority than Gordon Gilroy, sales manager of Precision Valve Corp., up Yonkers way Mrs. Gilroy, Gordon tells us, recently gave birth to their first daughter, Elizabeth. The Gilroy's have two other sons.

Gov. Nelson Rockefeller of New York accepts a 2,000 year old Pre-Columbian stone figurine from Luis de Hoyos, general manager of Synfleur Scientific Laboratories. Inc., Monticello, N. Y., and mayor of Monticello. The Governor accepted the sculpture for the New York Museum of Primitive Art of which he is president and founder. Mr. de Hoyos is reported to have the largest private collection in America of Mezcala stone sculpture found in west central Mexico. Synfleur makes basic perfume and flavor materials.



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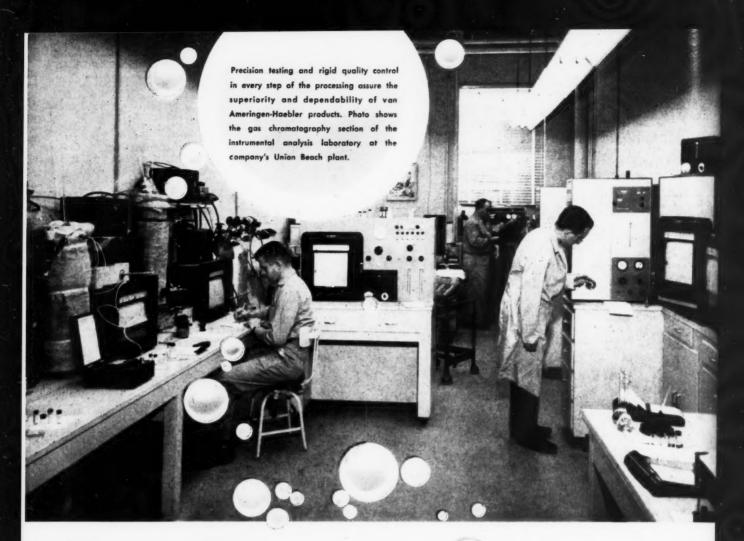
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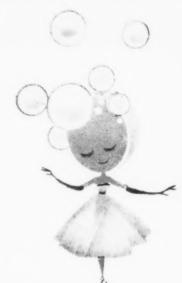
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